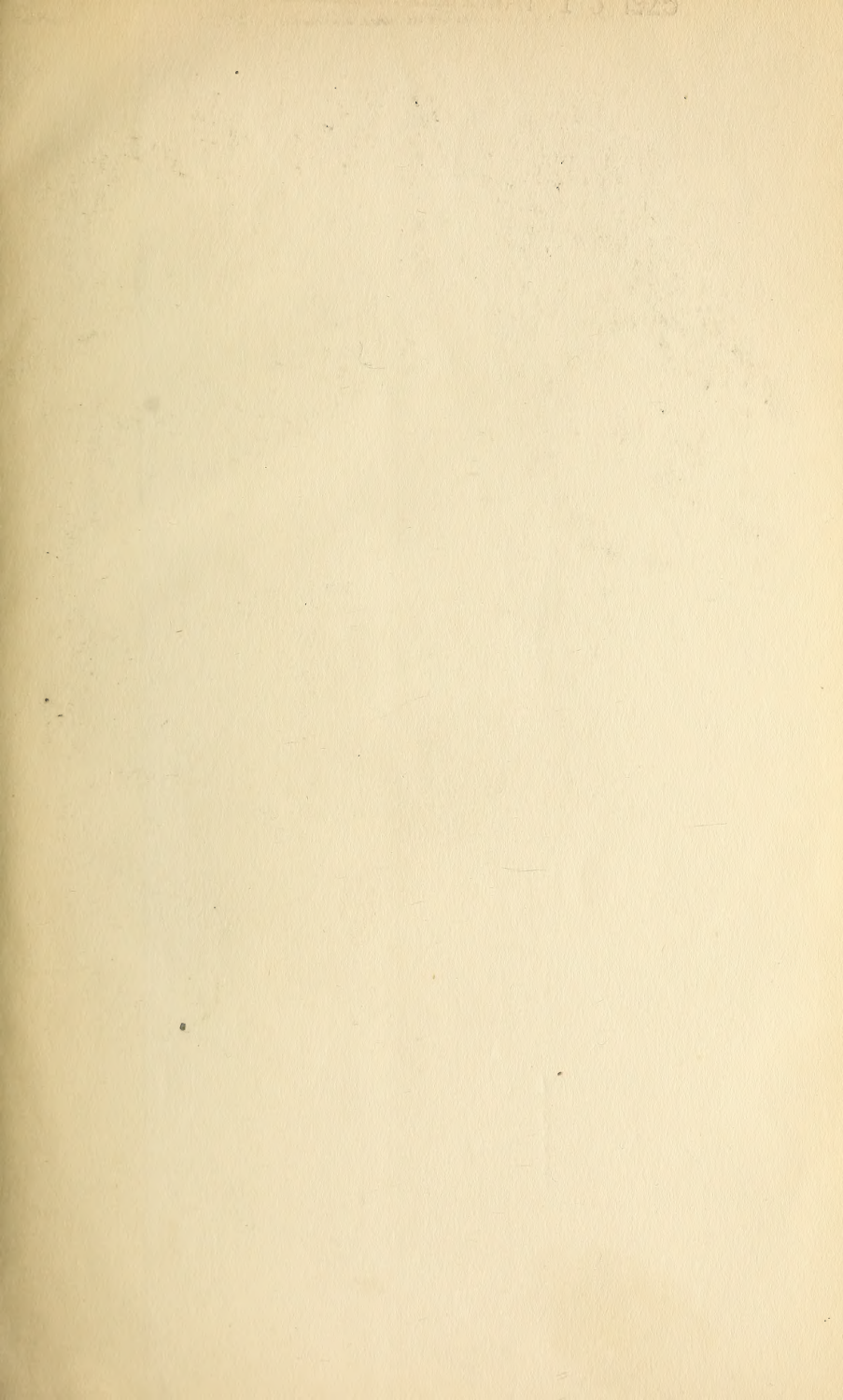
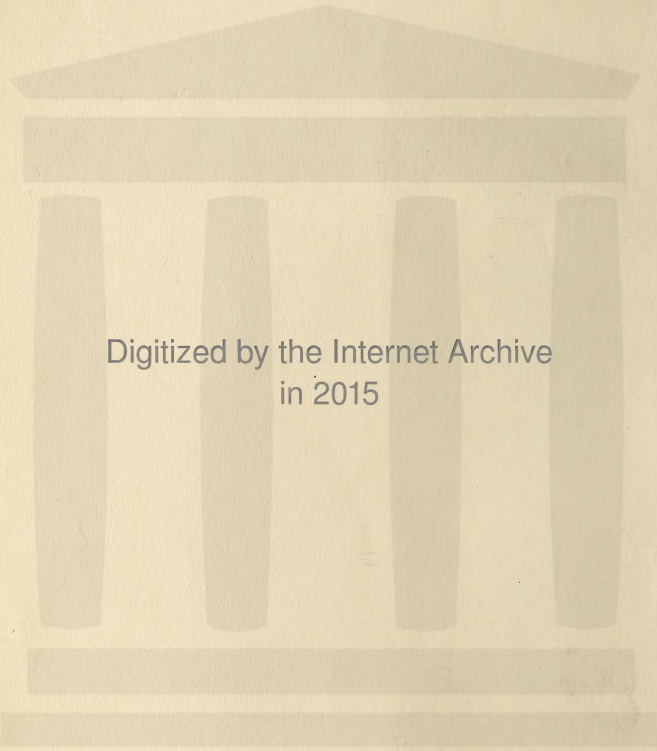


B 2
STORAGE

UNIV. OF
TORONTO
LIBRARY





Digitized by the Internet Archive
in 2015

Gov. Doc.
G.B.
Mun

Gr. Brit. Munitions. Ministry of

CONFIDENTIAL.

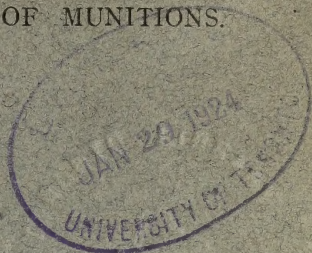
For Official Information only.

Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS.

Vol. 3 - 4.

2 vol. in 1

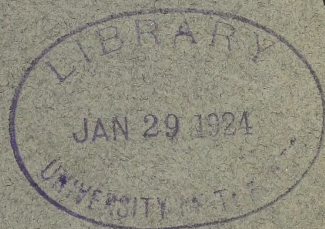


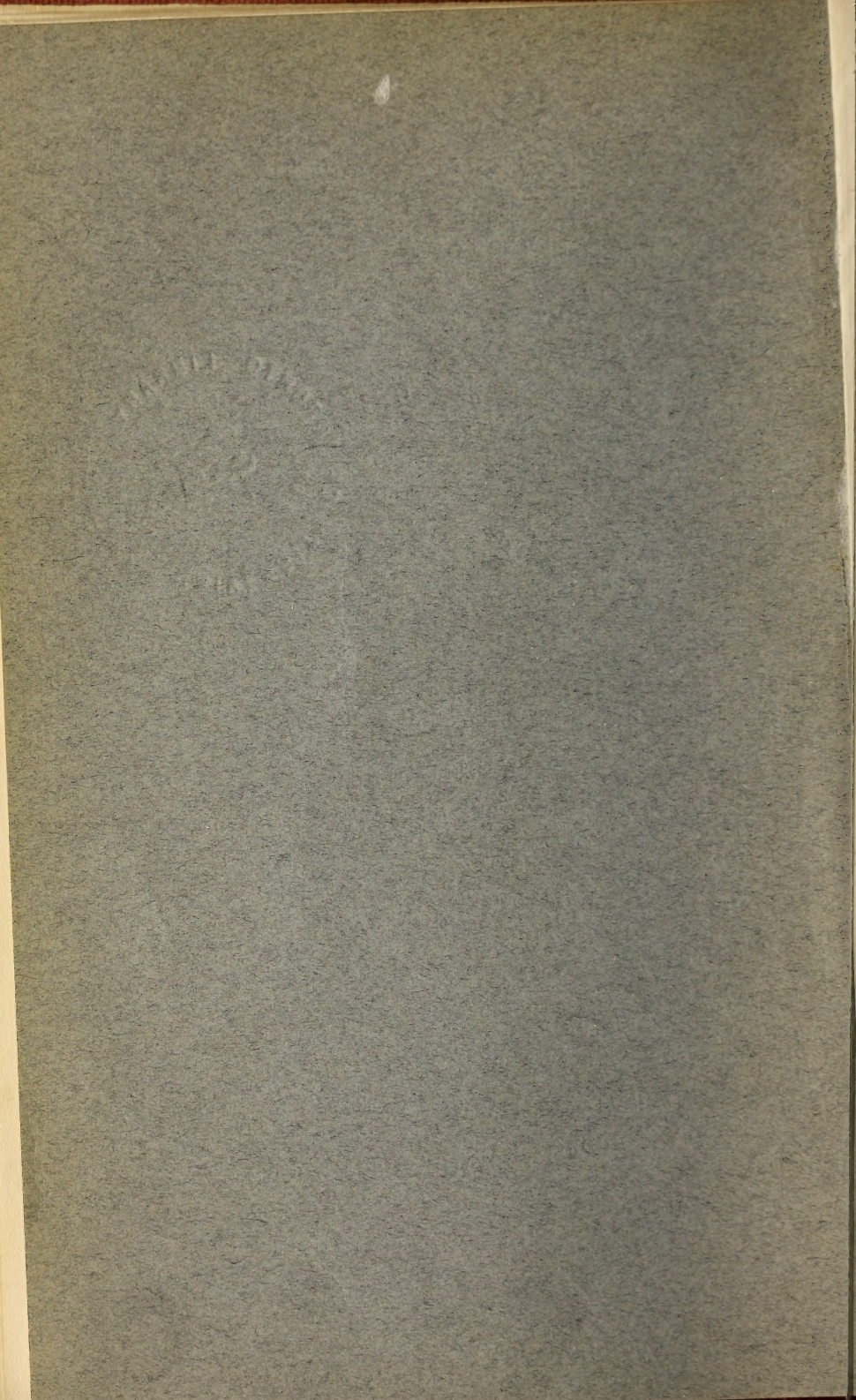
VOLUME III

FINANCE AND CONTRACTS

PART I

FINANCIAL ADMINISTRATION



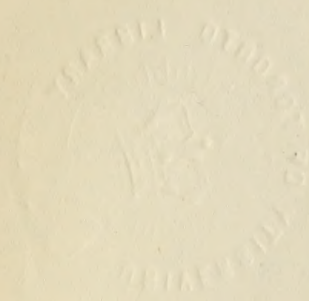


VOLUME III
FINANCE AND CONTRACTS

PART I
FINANCIAL ADMINISTRATION

196690

18.6.25



CONTENTS.

CHAPTER I.

Financial Control.

	PAGE.
1. External Financial Control	1
2. Internal Financial Control	8
3. The Transfer of Finance	14
4. The Transfer of Contracts	17
5. The Appointment of Mr. S. H. Lever	20

CHAPTER II.

Stores and Accounts, 1915-16.

1. The Transformation of the Ministry's Business	28
2. The Elements of Stores Organisation	32
3. Storage	34
4. Stores Records and Accounts	36
5. The Issue of Materials	39
6. The Organisation of the Finance Branch	42

CHAPTER III.

Reorganisation of Accounts, 1917-18.

1. Introductory	48
2. Changes in Finance Organisation	49
3. The Centralisation of Stores Organisation	52
4. Reorganisation of Finance	58
5. The Financial Advisory Committee	63
6. The Relations of Supply, Contracts and Finance	65
7. The Internal Audit Section	70
(a) Uncharged Materials	73
(b) Central Invoicing	74
(c) Economy of Materials	76
(d) Results of the Internal Audit	78
8. The Institution of Double Entry	80
9. The Form of Public Accounts	81
10. The Special Investigation Section	91

CHAPTER IV.

Finance Organisation under the Munitions Council.

	PAGE.
1. Introductory	93
2. Finance and the Munitions Council	94
3. The Appointment of a Financial Secretary	98
4. The Proposal to appoint a Member of Council for Contracts	101
5. The Relations of Supply, Contracts and Finance	103
6. Financial Control of Programmes of Demand	112
7. Financial Control of Programmes of Supply	119
8. The Status of the Accounts Department	125
9. Reorganisation of the Finance Group Higher Staff	129
10. Final Reorganisation of the Finance Group	129

CHAPTER V.

Decentralisation.

1. The Meaning of Decentralisation	131
2. Evidence before the Organisation Commission, May, 1917	135
3. The Extreme Demand for Decentralisation	137
4. Decentralisation of Accounts	140
5. Evidence before the Staff Investigation Committee	142
6. Sir L. Worthington Evans' Scheme	145
7. The Committee on Decentralisation	148
8. Progress of the Decentralisation of Accounts	151
9. General Memorandum, No. 134, defining the Relations of the Departments	153

APPENDIX.

General Memorandum, No. 134	157
-------------------------------------	-----

INDEX.

Index	165
---------------	-----

CHAPTER I.

FINANCIAL CONTROL.

I. External Financial Control.

“ Under normal conditions, control of public expenditure is, or should be, applied at four points : (1) by the head of the spending department or sub-department ; (2) by the Financial Secretary or other Minister in charge ; (3) by the Treasury ; and (4) by Parliament.”¹

In considering the application of financial control to the Ministry of Munitions, it will be convenient to take first the external control exercised by Parliament and by the Treasury.

Parliamentary control is, of course, normally applied both before and after the money voted is actually spent. Under the principle of Appropriation, the Accounting Officer of a spending Department is in the position of an agent to whom his principal allots a certain sum to cover his estimated disbursements during the coming year. At the end of the year the agent renders an account showing that the money has been spent under the heads to which it was appropriated, and surrenders any balance that may remain. The cycle is then closed. The Treasury acts as an intermediary between the House of Commons and the Department, presenting, at the beginning of the period, the departmental estimates with its provisional approval, and, at the end of the period, the certified accounts with the report of the Comptroller and Auditor-General. The accounts and the report then pass under the scrutiny of the Public Accounts Committee.

In the emergency of a great war, contingencies which defy all forecast make it impossible for the War Departments to frame any reasonably close estimates of their probable expenditure. The fundamental principle of appropriation is at once sacrificed, and with it goes all Parliamentary control, in so far as this is applicable before the money is spent. Expenditure, in fact, is no longer determined by the amount voted by Parliament ; on the contrary, the amount voted is determined by the expenditure. Appropriation is superseded by the Vote of Credit, which “ differs (*e.g.*) from ordinary Army and Navy votes, inasmuch as it is taken not by the Army and Navy Department, but by the Treasury. The House of Commons, in fact, dispenses for the time with its power of control, and grants a sum of money in gross, and without the usual limitations, to the Treasury, as being the Central Department of Finance, to which it leaves the responsibility of distributing the money in the manner best calculated to meet the emergency.”²

¹ Select Committee on National Expenditure, Report VII. (1918), paragraph 25.

² Treasury Minute, 1 February, 1880.

In the late War, the first Vote of Credit for £100,000,000 was granted by the House of Commons on August 6, 1914. In a Minute of 20 August, the Treasury recognised that "it was quite impracticable for the Departments concerned to present to the Treasury, or for the Treasury to submit to Parliament in support of the Vote, any general scheme of the expenditure proposed to be incurred." The Treasury could only call upon the Departments to submit "the best estimates they can frame of their probable requirements." On the strength of such estimates, the Treasury, from time to time, asked Parliament for lump sums (Votes of Credit), out of which they allocated to the Departments the amounts they required. The Treasury could exercise very little control over this outflow, beyond calling for explanations when the estimates for a certain period proved to have been exceeded by the actual expenditure.

Not only was it necessary to abandon the preparation of estimates making any pretension to exactness, but the Treasury had also to waive the procedure by which it normally sanctions expenditure out of voted moneys. In the case of the Admiralty, the delays of inter-departmental correspondence were obviated by the institution of an Emergency Committee empowered to sanction urgent proposals not involving questions of policy important enough to demand formal reference. It was represented that "the departmental machinery of the War Office did not lend itself conveniently to this procedure," and accordingly, when after the opening battles of the War the need had become apparent for an enormous expansion of productive capacity, the Treasury, under a Minute of 8 December, 1914, dispensed the War Office from the obligation to obtain either previous or covering sanction "for any expenditure" (with certain exceptions) "from Army Votes which is certified by or under the authority of the Secretary of State for War as vitally necessary to the public interest, or to have been incurred under such conditions of urgency that it could not be submitted to the Treasury before it was incurred."¹

A further Minute of 29 January, 1915, which in practice applied mainly to the large new contracts for guns, small arms, and ammunition, extended the abrogation of the sanction procedure to contracts providing for assistance to contractors in respect of additional capital outlay. The Chancellor of the Exchequer directed that such contracts, throughout the War, "should be concluded by the Admiralty and the War Department without reference to the Treasury. The first interest of the taxpayer is that the supplies should be secured. With this object it may be to the public advantage to conclude contracts in the negotiation of which the prime necessity of securing expeditious and satisfactory delivery has been regarded as of more urgent importance than the actual terms of the bargain." The Chancellor, however, appealed to the Board of Admiralty and the Army Council to secure, by negotiation or by the use of any emergency powers conferred on them by Parliament, the most economical contract terms consistent with the requirements of the public service.

¹ H.C. 325/15. The most important exceptions were: Expenditure for purchase of land or in respect of buildings or works other than those of a purely temporary character designed for use during the War only.

The effect of these two Minutes was to release the Admiralty and the Army Council from control in respect of the most important of the novel classes of expenditure. Under these conditions the expansion of munitions production was begun by the War Office during the first year of the War, and afterwards continued by the Ministry of Munitions.

After the complete separation (1 October, 1915) of the finance of the Ministry of Munitions from that of the War Office, the Minister applied for the formal delegation of equally wide powers. He proposed that :—

“(a) as regards purchases of material and contracts, the Ministry should have a free hand within the limits of the amounts from time to time allocated to it out of the Votes of Credit ;

“(b) for other expenditure Treasury sanction be required, subject (1) to any exceptions allowed to the War Office which may be regarded as applying also to the Ministry of Munitions, and (2) to the Treasury Minutes of 8 December, 1914, and 29 January, 1915, which should be applied to the Ministry of Munitions.”¹

In reply, the Treasury, in a Minute of 24 January, 1916,² defined the relations of the Ministry to the Treasury.

Salaries.—The Treasury delegated to the Minister the right to appoint officers on a temporary and non-pensionable footing, at salaries not exceeding £400 per annum for clerical officers or £500 for technical officers.

In November, 1916, general authority was granted to the Minister to pay salaries to factory officials on a temporary footing within certain limits.³

Contracts.—In respect of contracts, the most important qualification imposed was that “all proposed contracts which involve payments in the United States of America or in Canada in excess of £50,000 should be reported to the Treasury at an early stage of the negotiations.”

Later, as the difficulties of American exchange increased, this limit was lowered to £5,000.⁴ On 11 August, 1917, it was laid down that no orders exceeding £10,000 should be placed in any country outside the British Empire without previous Treasury approval.⁵

Compensation to Contractors.—The customary discretion to deal with compensation to contractors up to a limit of £20 was extended to the Ministry.

In November, 1916, authority was given to approve compensation up to £1,000, when contracts were cancelled owing to change of requirements.⁶

¹ Letter to the Treasury, C.R./2979, 2 December, 1915.

² Enclosed in Treasury Letter, 28850/15, 29 January, 1916. C.R./2979.

³ Treasury Letter, 31703/16, 29 November, 1916.

⁴ Treasury Letter, 1088/17 (No. 128), 15 January, 1917.

⁵ Treasury Letter, 22822/17, 11 August, 1917.

⁶ Treasury Letter, 31703/16, 29 November, 1916.

Contract Prices.—The price to be paid under a contract could not be increased without previous Treasury sanction, except when it was due to alteration of requirements or to clerical error.

This rule was modified in July, 1918, when the Treasury gave to Sir John Mann (then Controller of Munitions Contracts) personally a discretionary power to vary the terms of a contract, where the amount involved by the variation did not exceed £500 or 3 per cent. of the value of the contract, whichever was less.¹

Land, Works and Housing.—Sanction was to be sought for (a) purchases of land or leases of land for a period of more than seven years; (b) expenditure of lump sums for the erection of factories, storehouses and inspection buildings, the responsibility for the distribution of the expenditure as between individual undertakings being left to the Ministry; and (c) expenditure on the housing of workers.

Accounts.—The Ministry was directed to prepare, in respect of each manufacturing establishment managed by the Ministry or by a private firm on the Ministry's behalf, accounts showing the cost of labour employed and the stores expended.

Closer contact between the Ministry and the Treasury was established in October, 1916, by the appointment of an Inter-departmental Emergency Committee, modelled on the Naval Expenditure Emergency Standing Committee already mentioned. It was instructed "to hear proposals submitted by the Minister for expenditure in connection with the supply of munitions of war for which the approval of the Lords Commissioners of H.M. Treasury is required, and to make recommendations thereon to their Lordships." The following were appointed members:—Sir Robert Chalmers, G.C.B., Chairman, Mr. G. L. Barstow, C.B., Mr. S. Dannreuther, Director of Munitions Finance, Mr. R. H. Carr, Assistant General Secretary to the Ministry.

The Committee dealt with all matters the administration of which rested with the Ministry, but which required the superior financial sanction of the Treasury. It did not touch matters such as Superannuation, Workmen's Compensation, Estimates and Budget, etc., which were administered by the Treasury. The object was to get quick decisions and to save correspondence; but in practice the Ministry continued to write official letters on questions which were too complicated for rapid and ready treatment by the Committee, or in reply to letters from the Treasury on questions raised by them. Opportunity was also taken to discuss semi-officially questions of principle before concrete proposals were put forward. The Committee was considered to be competent to make decisions for the Treasury on matters which were not of such importance as to call for reference to the Chancellor of the Exchequer.²

¹ Treasury Letter, 26361/18, 26 July, 1918.

² P.A.C. Report (1918), *Minutes of Evidence*, Qn. 1843.

The bulk of the Ministry's expenditure did not fall within the purview of this Committee, since the Treasury exercised no control over contract work in this country.¹ Of the schemes which were submitted some few were rejected, chiefly such as involved dollar purchases which might have to be suspended when the exchange position was critical.² But many discussions took place which led to schemes being modified, with the result that considerable savings were effected.

Under the terms of the Minute of January, 1916, defining the relations of the two Departments, the Treasury, as its representative explained to the Public Accounts Committee in 1917,³ accepted no responsibility for the amount to be expended even on undertakings of the magnitude of the Propellant Factory at Gretna, the estimates for which grew, in the course of the financial year 1916-17, from £2,000,000 to £8,000,000. Nor could the Treasury be responsible for seeing that the estimates were not exceeded. "Responsibility had to be placed upon the Department that is capable of exercising it. It would be merely to deceive the country and this Committee if the Treasury purported to concur in estimates for such a factory as Gretna." The Public Accounts Committee, in its Report, did not suggest that any tightening of Treasury control in this matter was possible.

On the other hand, the absence of any effective external check on the expenditure of such enormous sums caused considerable concern to the Select Committee on National Expenditure appointed by the House of Commons on 25 July, 1917. In their first report (24 October, 1917)⁴ they stated that, while they were not ready to make recommendations on the whole question of Treasury control over departmental expenditure, they were unwilling to postpone their recommendations on the relations between the Treasury and the Ministry, whose finance, in view of its magnitude and lack of administrative tradition, stood peculiarly in need of Treasury supervision. The Treasury exercised control over salaries above certain figures and over purchases abroad; but in respect of capital expenditure and home contracts the undivided responsibility rested with the Ministry.⁵ "Although your Committee recognise the conditions

¹ P.A.C. Report (1917), *Minutes of Evidence*, Qn. 2229.

² Some of these rejections caused a serious disturbance of the Ministry programme for raw materials, since they were made on financial grounds without regard to the balance of supplies. Thus, in 1917, the Treasury allowed the purchase of 100,000 tons of copper in the United States for the second half of 1917, but proposed to postpone for two months the purchase of 20,000 tons of spelter. On 2 August, 1917, a proposal was made by D.M.R.S. (Materials) that the Department should negotiate with the Treasury on the basis of programmes, translated into the currency of the various countries, which could then be scaled down as a whole.

³ P.A.C. Report, 1917, paragraph 52; *Minutes of Evidence*, Qn. 2282, 2315, 2333.

⁴ Paragraphs 32-38.

⁵ In criticism of this statement, it was pointed out that in recent negotiations for taking over the Hoffmann works (C. & A.G. Report on Ministry of Munitions Appropriation Account, 1917-18), and in the case of the Potash contract, the Treasury had asserted their view as to terms.

of urgency and stress which prevailed at the time when the Ministry of Munitions came into being, we consider that the Government should have taken steps before now to establish such a measure of Treasury control as would have enabled the Treasury to satisfy itself that capital expenditure and contracts for munitions were being made by the Department only on terms that were carefully considered and were reasonable. War conditions, removing in most cases the usual checks of competitive tenders and fixed estimates, have rendered such supervision more than ever desirable."

The Committee recommended :—

"That the Treasury should give such directions with regard to capital expenditure and grants or guarantees of allowance from Excess Profits in respect of capital expenditure as would establish a definite limit for the financial branches of the Ministry, while leaving them free to conduct and settle negotiations without reference to the Treasury in each case."

This recommendation of the Select Committee, together with discussions at the Inter-departmental Emergency Committee, led to the proposal that the almost unlimited powers granted by the Treasury Minute of January, 1916, should now be restricted. At this time, moreover, it appeared that the equipment of the country with munition factories was approaching completion. In a letter of 29 October, 1917, the Treasury requested

"that any new expenditure on factories and other work of construction or on extensions of existing factories and building costing £50,000 and upward may be submitted for their approval before further funds are committed thereto."¹

This proposal covered not only Government factories, but also contributions and capital outlay in contractors' works, which had been withdrawn from all Treasury control under the Minute of 29 January, 1915. The Finance department of the Ministry welcomed the Treasury's request as likely to increase their own control over schemes put forward by other departments of the Ministry. The new rule was, accordingly, adopted by the Minister; but only "on the understanding that it is open to the Minister to sanction such expenditure in excess of that sum in special cases where, in his opinion, the public interests would suffer from any delay in prompt action."² The Treasury demurred to this proviso, but gave way under pressure, though they expressed the opinion that the Treasury might well be notified of special cases in which it was proposed to spend more than £50,000 on a new factory.³

Shortly afterwards, the Treasury imposed a limit upon free grants for the capital requirements of munitions firms. The Minister was authorised to make without reference to the Treasury "free grants

¹ Treasury Letter, 34719/17 (No. 807), 29 October, 1917.

² Ministry Letter, 1 November, 1917. Munitions Council/313.

³ Treasury Letters, 36710/17, 14 November, 1917; 39531/17, 3 December, 1917.

in such cases up to £10,000, or to 40 per cent. of a firm's capital requirements, so, however, that the total sum advanced by way of free grant does not exceed £50,000 to any one firm."¹

Subject to these limitations, the Ministry continued to exercise the powers granted by the Treasury Minute of 24 January, 1916, until the Minute was withdrawn after the conclusion of the Armistice.

The Select Committee on National Expenditure further proposed that the Treasury should exercise some supervision over munitions contracts. It was not easy to see what form such intervention could possibly take, and the Committee recognised that the Treasury, as at present constituted, could not perform such duties. They suggested that it should be reinforced by "proper assistance, which could be drawn from among the men of experience in industry and finance at present engaged in the Ministry or elsewhere." Their recommendation was as follows:—

"That the Treasury, without attempting a detailed control over the terms of individual contracts, should determine from time to time the rates of profits, and should satisfy themselves that the conditions of contracts were sound."²

The first part of this recommendation led the Controller of Munitions Contracts to ask the Financial Advisory Committee to express their view as to a "reasonable rate of profit" for the guidance of contract negotiations. This matter will be dealt with later in this volume.³ On the wider question of the Treasury intervening in the internal conduct of departmental expenditure, even to the limited extent suggested by the Committee, experienced officials were doubtful of the possibility of such intervention being effectively undertaken. The Secretary of the Ministry observed that the evidence of Treasury officials before the Public Accounts Committee had favoured the latitude allowed to the Ministry (and to the Admiralty) with respect to capital expenditure and contracts. It appeared very doubtful whether the application of ordinary Treasury control would conduce to economy. The secret of economical working of manufacturers was efficient administration; broad questions of policy were dominated by military and political considerations which only the Chancellor of the Exchequer could contend with in the Cabinet. To require Treasury approval for detailed items of expenditure would cause delay without reducing expenditure. The addition of industrial and financial experts to the Treasury staff would only duplicate authorities and weaken responsibility in the spending departments of the Ministry.

The Second Report of the Select Committee, published on 13 December, 1917, dealt at greater length with the question of Treasury control, and expressed the opinion that the degree of control then being exercised fell far short of the needs of the case. The Committee

¹ Treasury Letter, 41798/17, 11 December, 1917.

² Report I. (1917), paragraphs 32–38.

³ See Volume III., Part II.

again recommended that the Treasury staff should be strengthened "by the addition of men of ability and administrative experience from outside." They considered that the Department would then be able to exercise a more active financial supervision, aiming "at ensuring the adoption of sound financial methods in every province of administration, at preventing undue profits being made by contractors, at preventing competition between Departments in purchasing supplies and in obtaining labour."¹

It may have been thought that, in the year 1918, it was too late to extend the functions of the Treasury in a manner which would admittedly have involved adding to the staff a considerable number of outside experts in business unacquainted with the venerable and jealously guarded tradition of the Department. The work to be undertaken by these new-comers would have been of the most delicate kind, trenching at many points upon the proper functions of the supreme Finance Officers in other Departments, whose duty lay in the economical use of the moneys allotted to their respective services. At any rate, the changes actually made in consequence of the Select Committee's Reports were not of this far-reaching character, although the Treasury did obtain further assistance from men with outside business experience. They also appointed a Special Committee to advise them on contract arrangements, and another to enquire into the temporary staffs of the Departments.² In the case of the Ministry of Munitions a larger number of important proposals for expenditure were brought within the class of schemes which required Treasury sanction. The period of maximum capital expenditure was already past, and the reform of the internal financial arrangements—begun, as the following pages will show, at the end of 1916—was still being carried out.

II. Internal Financial Control.

The foregoing paragraphs have shown that the great bulk of munitions expenditure, both at the War Office and at the Ministry of Munitions, was deliberately freed from the effective control of external authority. From the first months of the War it became clear that the burden of responsibility was shifted from Parliament and the Treasury to the ministers and officers in charge of the internal finance of the military and naval Departments.

In proportion as external control was weakened, it would have been desirable, if it had been possible, that internal control should be strengthened. When the Ministry was established, it might have been expected that the finance organisation would be placed on a footing, in relation to other branches, at least level with the position of the Finance department at the War Office. For various reasons, which the following pages should make clear, this was not done ; and

¹ Report II. (1917), paragraphs 6–15.

² *Parliamentary Debates* (1918), *H. of C.*, CI. 27.

the history of the Finance department may be read as the story of a long and uphill struggle towards the attainment of a status and authority which, in the light of after-wisdom, it is easy to see it should have held from the outset.

At the War Office, under the constitution of that Department as it stood in 1914, finance was represented on the Army Council by the Finance Member, who, on the recommendation of the Esher Committee appointed in 1903, had replaced the former Financial Secretary. Under the Finance Member were two permanent heads of departments immediately responsible to him: the Director of Army Contracts, whose department had been separated from the Finance department in 1908; and the Assistant Financial Secretary, who had two immediate subordinates, the Director of Army Accounts and the Director of Financial Services.

The main principles implied in this organisation were: first, that Finance was directly represented on the supreme Council; and, second, that the chief permanent officials in charge of Finance and Contracts were independent of one another, and responsible directly to the Finance Member. The Director of Contracts, responsible for the terms of contracts (including the prices paid), was thus on an equal footing with the heads of the Military branches immediately subordinate to the Military Members of Council. On the other hand, he had to deal on equal terms with his colleague, the Assistant Financial Secretary, whose main duties were the provision of funds and the rendering of accounts, and who had consequently an independent voice in any question of the economical disposal of public money. This balance of power, as between the interests of Supply, Contracts, and Finance, had been reached, as the result of long experience, after the trial and rejection of other systems. A considerable part of the following pages will be occupied with the description of the attempts to establish it in the Ministry of Munitions.

The Assistant Financial Secretary at the War Office held the position of Accounting Officer. The duties of this post are strictly defined, and, in so far as financial control is concerned, not very onerous in normal times. The Accounting Officer in any Department is appointed by the Treasury—a custom which symbolises the fact that he is in effect an outpost of the Treasury, and answerable to it for the proper expenditure of the money voted to his Department. For policy he had no responsibility. He could always be overruled by the Secretary of State, even in matters which involved payments in excess of Treasury authority, and in all other matters by the Finance Member. On the other hand, he was free from responsibility for contract prices, which rested with the Director of Contracts. Thus, in the main, the Accounting Officer faced outwards towards the Treasury and Parliament.

It had, however, been laid down that Accounting Officers were to “satisfy themselves as to the correctness and propriety of the transactions before making or allowing payments,” and it was further

recognised that "in addition to the duties strictly attaching to these officers of accounting for expenditure out of Votes of Parliament, Accounting Officers, particularly in the great spending Departments, have responsible duties as financial advisers; and by their criticism, based upon intimate knowledge, of all proposals involving new expenditure, they exercise great powers of financial control. Evidence on this aspect of the functions of Accounting Officer was given before the Select Committee of National Expenditure, 1902, when Sir Robert Chalmers said that the essence of the Treasury control over Army and Navy expenditure is really the control of the Department itself, reinforced by the Treasury, and that the Accountants-General of these Departments understood that financial control is within the scope of their duty. This view was confirmed by the evidence of Sir Richard Awdry and of Sir Frank Marzials, the Accounting Officers of the Navy and Army respectively, who stated that in that capacity they were responsible for enforcing economy in the administration of the two services."¹

This quotation describes the normal functions of the Accounting Officer; it does not refer to the emergency of war. The theory is that the Accounting Officer, considered as the watch-dog of the Treasury, should, in addition to seeing that funds are available, maintain some control over the general volume of expenditure, as distinct from the detailed bargains, for the price of this or that store, entered into by the Director of Contracts. This duty would imply a preliminary survey of programmes put forward by Supply branches, and of estimates, furnished by Contracts, of their probable cost. It could hardly be carried out unless the Accounting Officer were in a position to ask Supply to justify its programme, and, if necessary, to curtail it and submit to rationing.

It need hardly be said that the Accounting Officer of the Ministry of Munitions was never in a position to do anything of this kind. In the first place, with the practical disappearance of Treasury control over the great mass of expenditure, the internal representative of the Treasury interest lost the support upon which he would normally lean. Add to this that in the peculiar case of the Ministry, a Department called into existence to furnish, by novel methods and on an enormous scale, supplies of a highly technical character, the Accounting Officer's criticism of proposals for expenditure could no longer be described as "based upon intimate knowledge." The inevitable effect was that the powers of financial control normally vested in this officer lapsed in the same way and for the same reasons as the control of Parliament and the Treasury. It was not until a late period in the history of the Ministry that the problem of an effective criticism of programmes of expenditure was seriously faced, and then only under the pressure of other than financial considerations.²

Whatever force there may be in the criticisms directed against the weakness of the Ministry's financial organisation, it must never

¹ Memorandum by the Comptroller and Auditor-General, P.A.C., 2nd Report (1916), P. xx.

² See below, Chap. IV., Sect. VI.

be forgotten that the ultimate cause of weakness in financial control was one which the strongest organisation could not have obviated. The root of the matter lies in the oft-repeated phrase: "Finance has never been the limiting factor." Confronted with an unlimited demand, in the sense of a demand in excess of all visible sources of supply, effective control lies with the man who can say: "There is just so much x available, and no more; if you use it for this purpose, you cannot use it for that." In normal times, x in this formula is money: the limit is imposed by the amount of the Parliamentary vote. At no time in the course of the War has this interpretation held good. The x has at one time been engineering capacity, at another man-power, at another tonnage. The quantity of available money has never been known to anyone—not even to the Chancellor of the Exchequer, who could not foretell the yield of his successive loans, or calculate how far the nation would go towards bankruptcy in order to avoid defeat. That being so, the highest financial authority in the Ministry was never able to take his stand and meet any demand, supported by the considered opinion of experts in supply, with a flat refusal. The ultimate consideration was not, as in peace time, a figure in the Parliamentary budget, but the call of the Army overseas. When this is clearly understood on both sides, the moral force is taken out of financial control in the sense of any attempt to check the volume of expenditure. The finance authority can no longer fix any limit to the quantity of supply. Finance is reduced to the humbler task of devising methods of keeping down contract prices, and obtaining on the cheapest terms a quantity of goods and services determined by limiting factors other than money. If financial control is understood in this latter sense, the Ministry has some striking achievements to its credit.

There is the further point that the machinery of financial control grinds slowly, whereas the state of munitions supply in the latter half of 1915 was not such as to admit of any niceties that entailed a moment's avoidable delay. As Mr. Churchill said in the House of Commons:—

"It must never be forgotten that the Ministry of Munitions was called into being by the convulsion of war; the one overpowering need of the moment was to supply the troops with weapons and with munitions which were required. What else mattered? What else compared for a second with that? An extraordinary improvisation without parallel in any country in the world took place in our industrial system. Thousands of persons who knew nothing at all about public business or public departments, thousands of firms which had never been used for warlike manufacture, were amalgamated together, brought hastily together, and out of this ever-growing and enormous organisation that great flow of material of all kinds which raised our Army to the very forefront of the combatant armies was almost immediately produced.

"If at that time you had enforced strict and circumspect financial control and procedure, with every kind of check and

counter-check operative both before and after the event, you might indeed have saved several millions—I dare say that is a modest figure—but you would have cramped and paralysed the whole of the organisation, and by so doing would have run grave risk of causing serious military injury which would manifest itself in the loss literally of scores of thousands of lives.”¹

Before passing to a description of the actual financial organisation of the Ministry, there are one or two more considerations of a general character to be noticed. These turn upon the peculiar nature of the Ministry and its relations to other Departments.

The first point is the divorce of demand from supply, and the consequent uncertainty as to the volume of demand. So long as munitions supply remained with the War Office, the functions of demand and supply were combined in the same Department. Demands were presented by the Military branches to the proper Contract sections, whose business it was, in co-operation with the Finance officers, to find contractors and to settle prices. The final responsibility was centred in the Finance Member, who was a Minister with a seat in the House of Commons. When the business of supply and contracts passed to the Ministry of Munitions, the function of demand remained behind. The original letter of 5 June, 1915, in which the Minister proposed a delimitation of functions, made this clear:—

“It is understood that the duties of the new Department with regard to the supply of each kind of munition will begin when the requirements of the War Office have been made known to it, as regards the kind, quantity, and quality of such munitions, and that they will end when the delivery of such munitions, passed by the Inspection Department as complying with the specifications, has been made to the War Office either at the factories or contractors’ premises or at such depot as may be indicated by the War Office.”

The gap thus opened proved to be one which it was not easy to bridge. The War Office formulated demands on military grounds, the nature of which was not even known to the Ministry, much less open to any criticism on the part of its financial officers. The Department charged with fulfilling the demand was also, after the first few months, responsible for the payment. The duty of securing economical bargains obviously rested with the Ministry; but which Department was responsible for setting some limit to the enormous increase in the total volume of expenditure? This question can hardly be said to have been considered in the first year of the Ministry’s existence. As will be seen, it was raised by the Treasury in October, 1916, and the Minister then made it clear that, in his opinion, the whole responsibility for the extent, as well as the nature, of the demands rested on the Department which presented them. The subject was pursued in 1917, and further developments followed, which will be considered later.² Here it may be noted that, while in normal times, when

¹ *Parliamentary Debates* (1918), *H. of C.*, CV. 1156.

² See below, Chap. IV., Sect. VI.

demand is governed by estimates and appropriation, and supply is subject to no exceptional stringency, this division of functions may be unobjectionable, in the circumstances of the late War it gave rise to considerable difficulties. The governing factor being no longer a fixed amount of money available, but the constantly varying limitations of productive capacity, including labour and tonnage, the knowledge required to draw up a balanced and practicable programme lay in fact with the Department responsible for fulfilling the programme rather than with the Department which originated demand. The difficulties were increased in the early days by the War Office custom of presenting demands piece-meal for so many guns at one time, and so many thousand shells at another, not to mention the sudden changes of design and shifts in the balance of requirements which reflected the experience of the behaviour of munitions in the field, changes in tactical method, and other accidents of warfare which could not be foreseen. In this intricate situation, it is easy to understand that financial criticism of demands was not likely to be effectively exercised by either Department.

Within the Ministry itself, another important problem of financial responsibility, incidental to the organisation of the Department, gave rise to a perennial conflict between the departments of Supply and Contracts. At the War Office these two functions had originally been united in the Contracts sections. The beginning of separation dated from the appointment of the Armaments Output Committee as a sort of semi-official adjunct of the Contracts section under the Master-General of the Ordnance. The Committee developed into the nucleus of the Department of Munitions Supply in the newly-formed Ministry, and as such it was allowed from the first a formal, as well as a practical, pre-eminence over the Contracts and Finance sections which were detached with it from the War Office. By this time the normal procedure of placing contracts by competitive tender and negotiation had to a very large extent been superseded. New sources of supply were springing up in the Co-operative Groups and National Factories, managed by local committees under the central direction of the Supply branches. As time went on, the knowledge how and where munitions and materials could be produced became more and more the exclusive property of Supply officers, and the preliminary negotiations with contractors naturally passed into their hands. In the early period, when the stress was greatest and expansion most rapid, it was hardly to be expected that these officers, bent upon producing their stores at the earliest possible moment, and sometimes also impatient of routine, should hold their hands precisely at the point where the negotiations would in effect commit the Department to the payment of a certain price. But the settlement of prices is the essential function of Contracts, which, if that duty be taken from it, is reduced to a mere legal section formally recording the terms of a bargain concluded elsewhere. Thus the Supply departments, gaining almost from day to day in strength and rapidly increasing in number, tended to encroach on the province of Contracts, and a claim arose that Contracts should be absorbed in Supply. This claim was resisted

on account of the obvious danger that, if responsibility for prices passed out of the control of an independent department, the interest of economy would be submerged by the dominant interest of production at all costs.

The human aspect of this controversy lay in the contrast, in tradition and outlook, between the Civil Servant and the man of business. An observation of Lord Haldane's may be quoted :—

“ I think that one of the great features of this war has been the difference between the Civil Servant and the business man ; the Civil Servant, admirable in matters connected with finance, but not trained to carry on the businesses which the necessities and scale of the War entailed ; the business man, on the other hand, excellent at organising new things swiftly, promptly, efficiently, but, when it is not his own finance that is in question, apt to regard the resources of the Government as a sort of bottomless purse into which he may put his hand. The result is that no doubt there has been a most enormously extravagant expenditure.”¹

The Contracts and Finance branches were staffed by Civil Servants and by recruits trained under their supervision. They endeavoured to uphold the tradition of the public service. The Supply branches, on the other hand, were directed by men of business to whom that tradition was foreign. Throughout its history, the Ministry was wrestling with the problem of the proper relations of Supply to Contracts and Finance. It was under discussion throughout the years 1917 and 1918, and the final definition of functions was not promulgated until just before the Armistice.

Both the problems indicated above spring from the same cause—the separation of functions which in the system evolved under normal conditions had been combined. When the Ministry split off from the War Office, supply was divorced from demand. Inside the Ministry there was a tendency for Supply to become too independent of Contracts and Finance. In each case the incidence of financial responsibility became for the time difficult to locate. In ordinary conditions neither problem is by any means insoluble ; but in the stress of war time the tendency of too rapid evolution was to produce heterogeneity without its proper attributes of definiteness and coherence.

III. The Transfer of Finance.

At the War Office, the Finance department, reporting directly to the Finance Member, had two functions : (a) the financial criticism of programmes and provision of funds ; and (b) payments and accounting to Parliament for expenditure. The Ordnance Factories were under military control ; but the Finance Member, through the Finance department, was responsible for salaries and rates of wages, and for the cash and cost accounts of the Factories. The Finance

¹ *Parliamentary Debates* (1919), *H. of L.*, XXXIII. 965.

branches dealing with the finance of the Supply departments also dealt with the correlative accounts. The experience gained in handling the accounts was found useful in securing better financial criticism.

The financial organisation of the War Office was based on the principle that there should be a close association of administration and finance at all points. The Military branches were manned by Staff Officers on the Active List, usually appointed for a term of four years. It accordingly rested chiefly with the Finance department to secure continuity. The necessary contact with the Military branches was maintained through outlying Finance branches attached to them, which watched over the financial effect of all that went on, including the working of their contracts. All the orders for expenditure under the votes they administered passed through the hands of the Finance representatives, who kept the only accounts of such expenditure. They formed a link between the heads of these departments and the central Finance department, and provided a channel through which any matter that could not be settled by the Military Member might be referred to the Finance Member of the Council.

In the department of the Master-General of the Ordnance, such a Finance branch (known as M.G.O. (F.)) dealt with the finance and accounts of Army Vote 9 (Armaments, Engineer Stores, and Aviation). From October, 1914, onwards, by direction of the Assistant Financial Secretary, Mr. Dannreuther's time was almost wholly taken up with the financial questions (capital contributions, advances, banking loans, etc.) involved in the new assisted contracts, which required the authority of the Assistant Financial Secretary. To these duties were added, in the summer of 1915, the finances of the Armaments Output Committee, the local munitions committees, and the new National Shell Factories. It was at first intended that these local organisations should be on a small scale, using existing machinery, and managed by Boards composed of local business men on a voluntary basis. A simple form of instructions for the keeping of accounts was prepared, and the audit was entrusted to local firms of chartered accountants.

When the Ministry was established and the transfer of duties from the War Office was under discussion, it was not thought desirable to impose at once upon the new Department the responsibility for conducting in detail the expenditure of Votes running to many millions and the corresponding accounts. The Minister accordingly proposed that :—

“ All payments made to contractors, and for the purposes of new factories for shell, explosives, arms, or other munitions, will be made and accounted for by the War Office.

“ It is understood that the services of Mr. Dannreuther, who is at present in charge of these branches of Army expenditure under Sir Charles Harris, will be available to the responsible officers of the Ministry of Munitions for the purpose of arranging all details of finance.”¹

¹ Ministry of Munitions to War Office, 5 June, 1915. M.W. 1374.

On 8 July, 1915, the Minister invited Sir Charles Harris to act as Accounting Officer and take charge of this class of expenditure, and to perform "the same functions of financial criticism, advice, and accounting in the Munitions Department as in the War Office, but under the immediate orders of the Minister of Munitions and the Parliamentary Secretary of the Munitions Department, it being clearly understood that the expenditure of the latter Department is not subject to control or review by any officer of the War Office acting as such." With regard to the Ordnance Factories, it was proposed that, while the distribution of orders for munitions should be controlled by the Ministry, the actual management of the Factories and the conduct of their expenditure and accounting should remain with the War Office.

Sir Charles Harris accepted this position and held it until September, 1915, when the increase in the work had become so heavy that he was obliged to resign. Mr. Dannreuther, whose branch was transferred to Armament Buildings, was appointed Director of Munitions Finance, with the status of Deputy Director-General.

During this interim period, the only classes of expenditure which were dealt with independently by the Munitions Department were the salaries, wages, and allowances of the unestablished staff, certain new classes of expenditure under the Munitions of War Act (the enrolment and allowances of Munitions Volunteers, expenses of Munitions Tribunals, etc.), and a few miscellaneous items. For these purposes a "Ministry of Munitions Deposit Account" was opened in the books of the Paymaster-General on 16 June.¹

In the course of July and August consideration was given to devising the best permanent basis of financial administration. It was finally decided that munitions expenditure should be placed upon a direct Ministry Vote. In a letter of 23 September, 1915, the Ministry proposed to the Treasury that from 1 October the Supply departments should draw their own cash direct from the Paymaster-General, and that all expenditure on munitions should be charged to a Munitions Vote (Supply Department).²

With the concurrence of the Treasury an account, under the title of "Munitions Supply," was accordingly opened with a credit of £5,000,000, to run concurrently with the Deposit Account already mentioned. The consolidation of the two accounts was effected at the end of the financial year.³

Pending the appointment of an Accounting Officer to succeed Sir Charles Harris, Mr. Dannreuther acted in this capacity. On 20 September Mr. Oscar Barrow, C.S.I., formerly Comptroller and Auditor-General in India, was appointed Director of Munitions Accounts. From this time onwards Mr. Dannreuther, to some extent, lost personal contact with accounts, though in many matters the

¹ Treasury Letter to the Paymaster-General, 14451/15, 16 June, 1915.

² C.R./2707. Estab. Cent. 25/4.

³ Treasury Letter to the Paymaster-General, 22642/15, 25 September, 1915.

Director of Accounts reported through him, and he dealt with central accounts questions, such as appropriation accounts, audit queries, writings-off, etc.

The events which led to the appointment of Mr. S. H. Lever as Assistant Financial Secretary and Accounting Officer will be mentioned later.

IV. The Transfer of Contracts.

The Ministry of Munitions, apart from the Secretariat and Labour department at Whitehall Gardens, was formed by the federation of three distinct Supply departments. The oldest of these, the department of Explosives Supply, dealt with a special class of contractors, and had developed Contracts and Finance branches of its own, which it continued to maintain, as a fully-rounded organisation, throughout the War. The Trench Warfare department, dealing with stores of a miscellaneous character, was less completely independent; its orders had been placed through the established Contracts sections at the War Office. After its incorporation in the Ministry, arrangements were made which placed it on a footing analogous to that of the Explosives department. The remaining department, Munitions Supply, had, in its embryo form as the Armaments Output Committee, been associated with that branch of the War Office Contracts department which purchased warlike stores and scientific instruments.¹ The duty of the Committee had been to develop new sources for the manufacture of gun ammunition through the "local organisation" of co-operative groups of manufacturers, and later by initiating the first National Factories under Boards of Management. The separation of this organisation from the War Office carried with it the transfer of the corresponding Contracts branch with its current work and records.

In July, 1915, a second branch (Contracts 3),² which had hitherto remained under the Director of Army Contracts, also passed to the Ministry. From this date, accordingly, the Contracts branch of the department of Munitions Supply consisted of two sections, P.M. 1 (= Contracts 3) and P.M. 2 (=A. 7), both under Mr. P. Hanson as Director of Munitions Contracts. As the work increased, these sections were subdivided, and other sections were added, to deal with new classes of supply undertaken by the Ministry. The principle of organisation throughout was that each Contracts section should deal with a certain class of goods, so that the sub-divisions of the department corresponded, as a rule, with distinct Supply branches which were constituted on the same basis.

In view of the protracted controversy, already mentioned, between the Contracts and Supply branches of the Ministry, it is to be observed that, in the process of transfer to the new organisation, the relative

¹ This branch, originally Contracts 1A, had been formally transferred as from 5 April, 1915, to the Master-General of the Ordnance, and became known as A.7. The actual transfer dated from some months earlier.

² This branch purchased metals, machinery, horse-drawn vehicles and bicycles, electrical stores, and mechanical transport.

positions of the Contracts branch and the Munitions Supply department were reversed. At the War Office, the Armaments Output Committee had been technically no more than an adjunct of the Contracts section under the Master-General of the Ordnance. In the new Ministry, the head of the Contracts branch was not merely subordinated to the Director-General of Munitions Supply, but he was only given the status of "Director" of Munitions Contracts, so that he was inferior also to the Deputy Directors-General who controlled the branches of the Supply department. The same holds good, to some extent, of the Director of Munitions Finance. The reason for this subordinate status no doubt lay in the peculiar character of the interim arrangement already described, by which the post of Accounting Officer was held by an official of the War Office. This precluded the immediate formation of independent departments for Contracts and Finance, on a footing of equality with the Munitions Supply department, and immediately responsible to the Parliamentary Secretary. The value of this principle of organisation, as safeguarding the interests of financial control and economy, has already been emphasised. The fact that it was sacrificed, apparently without question, was a consequence of the sense that the interest of Supply was superior to all other considerations. The effect was a certain loss of prestige, from which Contracts and Finance continued for a long time to suffer.

In the early days, however, the functions of Supply and Contracts were still closely intertwined. The principle which differentiated their operations was not the logical division between two distinct and possibly conflicting interests—the interest of Supply to obtain the goods, and the interest of Contracts to fix an economical price—but a quite different principle dictated by the urgent needs of the moment. It was agreed that the articles to be purchased should be scheduled in two Lists, A and B. The Contracts branch was to assume responsibility for articles on List A, which was, at any time, to contain those goods which could be bought without special difficulty. The branch was, in fact, to continue to exercise its old Supply functions for certain classes of goods. Where, on the other hand, a difficulty existed about the supply of any article, it was to be placed on List B, and only transferred to A when the difficulty had been overcome. For this second class of goods Supply was to take the leading part. The Contracts branch reserved only the administrative acts of calling for tenders on a list furnished by Supply and formally closing the contract, together with the right of referring to a Deputy Director-General of Supply any bargain not considered to be in the public interest.¹

This classification, based on temporary convenience rather than logic, persisted throughout the history of the Ministry. Thus, the Contracts section P.M. 3 continued to act as a Supply branch for a considerable number of stores, of which accessories for small arms ammunition (charges and charger cases) and mathematical instruments are examples. As might have been foreseen, when difficulties did in fact arise in obtaining supplies, rather than start new Supply

¹ 94/Gen./209.

branches to deal with them, it was found more expedient to strengthen the staff of the Contracts section by the addition of technical experts. The Contracts department thus came to contain a number of Supply branches whose presence there was due purely to historical accident.

In a memorandum¹ of 10 September, 1915, confirming this arrangement, the Director-General of Munitions Supply wrote :—

“ It must be clearly understood, in order to avoid confusion, that when an article is on List B, all correspondence with the War Office, with the contractors, or otherwise, in reference to its supply, should be conducted by the Supply section, and not by the Contracts section. It is desirable that the Contracts section should as far as possible be kept in close touch right through the various steps in negotiations.”

It will not be denied that some risk was involved in the withdrawal of articles on List B from the close supervision of Contracts. It is true that the memorandum recommended as “ desirable ” that the Contracts section should “ as far as possible ” be kept in touch with negotiations. It was also laid down that “ no contract may be concluded except by the Contracts section.” But the following words left a considerable loophole for independent action on the part of Supply :—

“ and, as a rule, no bargain should be closed without giving the Contracts section an opportunity of advising, in writing or personally, on the price and conditions. If Deputy Directors-General or Directors who have negotiations in hand of an urgent character find this course impracticable in any given instance, they will exercise their discretion, and subsequently inform the Director of Munitions Contracts of the action taken, and they will also inform the Director-General of Munitions Supply, unless the conclusion of the bargain has been made with his concurrence.”

It may be argued that the granting of this discretionary power to Supply officers was completely justified by the urgent need, in the circumstances of the moment, for eliminating any avoidable delay. It would no less readily be admitted that a Supply officer who happened to be impatient of routine or not sufficiently alive to the claims of economy was exposed to the very temptation to which he was most prone to yield. The reality of this danger may be illustrated by a case which occurred in September, 1915. The Director of a supply branch responsible for raw materials informed the head of the corresponding Contracts section that his branch had accepted an offer of about 250 tons of aluminium in Japan at a price of about £170 a ton with 2 per cent. commission to the agents. Upon remonstrance being made, the Director expressed his willingness to co-operate with Contracts, but claimed that he had in this instance acted in accordance with the instructions of the Director-General of Munitions Supply above quoted.²

¹ Copy in 94/Gen./221.

² 94/Gen./221.

V. The Appointment of Mr. S. H. Lever.

The resignation of Sir Charles Harris and the separation of the Ministry's finances from the War Office made it necessary to provide for the exercise of the higher functions of financial control within the Ministry itself. If in these early days it could have been foreseen that the annual expenditure of the Department would, before the War ended, exceed £600,000,000, it is probable that the Finance department would now have been placed on the strongest possible footing. Had the example of the War Office been followed, a Financial Secretary of ministerial rank would have been appointed in a position corresponding to that of the Finance Member of the Army Council. This step was not in fact taken till the beginning of 1918. At the outset the work of Financial Secretary had been deputed to Dr. Addison, whose numerous other duties took up a large part of his time. When Dr. Addison became Minister of Munitions, he retained these functions in his own hands. Thus the purely financial interest was not at the Ministry, as it was at the War Office, represented by an independent champion charged with no other duties, and second in rank only to the Minister himself.

While the post of Accounting Officer was still being held by Sir Charles Harris, and the Contracts branch was in the subordinate position above described, Dr. Addison had realised the need of some further safeguard for economy in expenditure. He took measures which were designed to fortify the interests of which the Contracts branch was the natural guardian. The obvious course would have been to detach the Contracts and Finance branches from the Munitions Supply department, and to raise their heads to a status parallel to that of the Director-General of Munitions Supply, so that they should report directly to Dr. Addison himself. The course actually adopted was different, and, as it turned out, tended rather to weaken than to strengthen the position of the Director of Contracts.

Very shortly after the establishment of the Ministry, Mr. Geddes, then a Deputy Director-General, had suggested that the Supply departments should be assisted by one or more experienced cost accountants.¹ This proposal led to the appointment of Mr. S. H. Lever, Chartered Accountant, who received in August from Dr. Addison a commission of an extensive range, including functions which touched both the Contracts and the Finance departments, namely:—

(1) The devising and installation of a general system of Store Records

(2) The examination by engineers, accountants, or other qualified persons of any proposed capital expenditure for new munition factories, and the institution of technical checks, both before commitments were made and during the carrying out of work, in order to secure that all payments by the Finance department might be fully justified;

¹ HIST. REC./H/400/1.

(3) The examination into all current and future contracts with the view of ascertaining whether the financial obligations were being properly carried out in respect of capital expenditure, etc. ;

(5) The installation of systems of cost accounting in Government factories ;

(5) The advising on and dealing with any matters of an accounting nature in connection with proposed contracts or other matters requiring the services of an accountant, particularly claims for variation of contract prices.

Dr. Addison explained to the Public Accounts Committee in 1916 what had been in his mind in setting up Mr. Lever's department. He said :—

“When we first started in the Ministry of Munitions, Mr. Lloyd George asked me to take the work of the Financial Secretary, and it was evident—at least, it appeared to me—that one did not have as much expert guidance as one would like to have with respect to contract prices. Now the system, which I understand is a general one, is that the Contracts department reports directly to the Financial Secretary, and that the Assistant Financial Secretary, as he would be called in the War Office, who is in charge of the Accounting department, deals with the accounting, the banking, and so on, but, as such, has no responsibility for seeing, for instance—at least, it did not appear to me that he had sufficient responsibility for seeing—that we were not paying more than we ought to pay. I felt there should be, between the head of the Contracts department and myself, for my protection and for the protection of the Ministry, expert critics who would advise me as to whether the prices paid in the contracts were too high or not too high. So that in the early days we created what was in the first place simply a Cost Accounting department or branch, of which Mr. Lever in those days had charge, to advise as to costs.”¹

It will be observed that the department so created was of an unusual character, not fitting into any ordinary scheme of finance organisation. Among the duties assigned to Mr. Lever were some that would normally be exercised by an Assistant Financial Secretary ; for instance, the examination of schemes for capital expenditure and the general supervision of contracts. With these were combined others of a more technical and restricted nature—the institution of store records and cost accounting, two tasks of considerable magnitude and pressing importance. Mr. Lever's work under this latter section of his charter will be described elsewhere.² What is relevant here is that part of his functions which trenched upon the spheres of the Directors of Contracts and Finance.

¹ P.A.C. Report (1916), *Minutes of Evidence*, Qn. 2835.

² See Chap. II., Sect. IV., and Vol. III., Part II.

Not long after the creation of Mr. Lever's department, Dr. Addison appears to have issued instructions which still further widened the scope of his duties. Under the original minute of August, above quoted, the practice of the Contracts branch had been to consult Mr. Lever only when questions of cost accounting arose, and the Director of Munitions Finance whenever any advance of capital was involved. In such matters the Director of Finance often applied for Mr. Lever's advice. There appears, however, to have been some misunderstanding as to the extent of Mr. Lever's responsibility for contracts. On 12 October, 1915, Dr. Addison wrote to three heads of supply departments as follows :—

"I gave instructions some time ago that Mr. Lever's department was to be consulted on all contracts made by the department of Munitions Supply, or by any branch of it, before any commitment was entered into."¹

Dr. Addison asked that these instructions should be observed. Mr. Lever wrote on 19 October that he had not gathered that Dr. Addison wished him to review all contracts, but only those of a special nature : (a) where construction advances were part of the contract ; (b) where the terms were cost *plus* agreed profit, so necessitating a definition of the items entering into cost ; (c) contracts calling for the erection of factories to be owned and operated by the Ministry. Such contracts were outlined at the preliminary negotiations with contractors, and some preliminary bargains had had to be revised and varied. The Director of Munitions Finance and the Director-General of Munitions Supply agreed that it was not worth while to trouble Mr. Lever with normal contracts, or with ordinary contracts whose only peculiarity was a cash advance.²

These principles were accepted when, at the end of October, Mr. Lever was invited to take the post of Assistant Financial Secretary, Sir Charles Harris having resigned about a month earlier. Dr. Addison's minute, dated 29 October, defines the classes of contracts for which Mr. Lever was to be responsible.

It ran as follows :—

"MR. LEVER.—The work of certain departments of the Ministry dealing more particularly with finance and accounts has grown so rapidly and in so many new directions that it has become necessary to concentrate and co-ordinate these departments. I have, therefore, decided, with Mr. Lloyd George's approval, to appoint an Assistant Financial Secretary, who will be of the same status as the Directors-General, and to whom the Departments of Munitions Finance and Munitions Accounts will be directly responsible. Mr. Lloyd George has approved of your being invited to fill this post.

¹ These instructions have not been traced. On 2 October, Contracts Branch Memorandum No. 20 (94/Gen./244) directed that in future a copy of any contracts likely to involve special matters of accounting was to be sent to Mr. Lever on completion. This was to apply to all contracts involving capital advances for buildings or plant or where payment was made on some special basis, but not to ordinary tender contracts.

² 94/Gen./267.

“With regard to contracts, it will be your duty to see and express your opinion upon all contracts of the following kinds, and you will be responsible for sanctioning their financial terms :—

- (1) Contracts which involve capital expenditure or loans.
- (2) Nett cost contracts.
- (3) All important contracts or undertakings involving an expenditure of £40,000 and upwards.

“You may, however, be required by minute of the Minister to extend your functions to contracts other than those specified.

“All such contracts and undertakings must be referred to you, or such officers as you designate for the purpose, before any definite understanding is arrived at with the contractors.

“The Department of Cost Accounting will also continue to be responsible to you.

“As Assistant Financial Secretary, your powers and duties in matters of finance, accounts, and contracts, as above defined, will also extend to the Departments of Explosive Supply and Trench Warfare Supply.

(*Signed*) CHRISTOPHER ADDISON.”

In a letter of 24 November, 1915, the Minister proposed to the Treasury the appointment of Mr. Lever as Accounting Officer both for the Supply departments and for the Secretariat, whose expenditure, hitherto separate, it was now suggested should be brought under a single Ministry Vote.

“Mr. Lloyd George is aware that it is the usual practice for an Accounting Officer to be an established Civil Servant, and he recognises that there are clear and weighty reasons why, in the public interests, this practice should as a rule be observed. He is, however, strongly of opinion that in the present case the interests of economy and the safety of public funds will best be served by Mr. Lever's appointment in this capacity. He alone, of the persons who may be regarded as available and suitable, will have an intimate knowledge of the financial aspects of the enormous contracts which have to be made. The whole object of appointing him to the post he now holds is to ensure the strictest possible economy, and he will be the person best fitted by experience and knowledge of the facts to answer before the Public Accounts Committee for the expenditure on munitions.”¹

The Treasury accepted this proposal and appointed Mr. Lever Accounting Officer on 3 December.²

¹ M.W. 63878.

² Treasury Letter, 27961/15.

Mr. Lever was assisted by a committee known as the Finance Committee on Economy, which was appointed by the Cabinet and first met on 10 January, 1916. The members were :—Mr. Lever, Chairman, the Hon. N. Charles Rothschild, Mr. John Mann, and Mr. Frederick Palmer. This Committee discussed schemes for the reduction of prices, especially for gun ammunition, steel, and cordite. It carried on, in the summer of 1916, an enquiry into costs and methods of production at Woolwich. It reviewed large financial questions, such as the extensions of steel works, the position of copper supplies, and schemes for the production of spelter within the Empire.

It will be noted that this Committee was only advisory. Thus it carried on a controversy with the Materials branch on the state of copper supplies, which lasted for several months. The Committee could not enforce its views by a binding decision. All executive responsibility rested with Mr. Lever.

The authority of the Committee to make certain enquiries was challenged by one of the Deputy Directors-General. This led to the issue on 29 April, 1916, of General Office Notice, No. 11, which was intended to strengthen the Committee's position.¹ The text was as follows :—

“ The Officers of the Ministry are aware of the machinery which has been set up by my direction for the control of expenditure, in order that the Government may secure as economical and fruitful a use as possible of the large sums disposed of under the direction of the Ministry.

“ I am abundantly satisfied by the experience of the last six months that a proper checking of costs and expenditure is essential to efficient factory management, and is, therefore, necessary to secure the maximum output of munitions.

“ Now that so many of the national and other factories and establishments under the direction of the Ministry are completed or are approaching completion, I feel it necessary to draw the attention of all concerned to the duties and responsibilities of the Finance Department.

“ The finances of the Ministry, including those of the Projectile, National, Ordnance, Filling and other factories and establishments under its direct control both during construction and when operating, as well as the financial side of contracts, are placed under the control of Mr. S. H. Lever as Assistant Financial Secretary and Accounting Officer. Mr. Lever in all matters under his charge reports direct to Dr. Addison, who is responsible to me for the finances of the Ministry.

“ Mr. Lever is further assisted by the Committee appointed by the Cabinet consisting of him (as Chairman) and Mr. John Mann, Hon. Charles Rothschild, and Mr. Frederick Palmer. I desire all officers of the Ministry, in fulfilment of the intention

¹ *Minutes of Finance Committee on Economy*, 1 April, 1916.

of the Cabinet when they appointed this Committee, to supply them with such information as they desire to have furnished to them, in order to enable them to discharge the responsible duties they have undertaken.

“ Mr. Lever, as Accounting Officer, is responsible for all expenditure on behalf of the Ministry, and, before approving any expenditure, is required to satisfy himself that it is reasonable from the point of view of cost and that proper steps have been taken to secure economy.

“ I am glad to take this opportunity of expressing my appreciation of the large reduction in costs which have been obtained in many directions by the efforts of the Finance and Contracts Department.

(Signed) D. LLOYD GEORGE.”

This notice did not give the Committee any fresh powers. The burden of undivided responsibility continued to rest upon Mr. Lever.

It remains to note the reaction upon the position of the Contracts department of the special powers conferred on the Assistant Financial Secretary. Although the Minute appointing Mr. Lever to this post does not expressly mention the Contracts department, to make Mr. Lever responsible for the financial terms of all contracts of the classes specified was in effect to make him, as it were, a super-Director of Contracts. Dr. Addison described this development to the Public Accounts Committee in May, 1916 :—

“ In the early days we created what was in the first place simply a Cost Accounting department, or branch, of which Mr. Lever in those days had charge, to advise as to costs. But we had a large number of new big enterprises which needed checking throughout, and also large masses of contracts of what we might call the routine order, and it was evident that the same system of criticism ought to apply throughout, and, in order that it should be effective, that the expert criticism in cost ought to come in at an early stage of the negotiations. It is difficult, when you have got to the point of making the contracts, for the Finance department to come in then and say, ‘ This price is too high.’ The way to keep the thing on proper lines, as it appeared to me, was that the financial critic should come in at the beginning and be, so to say, a party to the negotiations throughout. So that I obtained Mr. Lloyd George’s sanction to place the Contracts branch in respect of all financial terms of contracts (I am not now discussing as to whether you should order 1,000,000 or 2,000,000 articles) subordinate to the Accounting Officer who advised me upon them. Afterwards the Cost Accounting branch developed, so that the finance side of the Ministry fell into four divisions—there was the Munitions Finance, the Munitions Accounts, the Munitions Costs, and Munitions Contracts. Mr. Lever was appointed Assistant Financial Secretary, and he was instructed to criticise costs from the start, and the Supply branches were

instructed what to do in the case of large contracts. Gradually, as we got our machinery into being, the system has been extended so that the Finance department comes in at the earliest stages of negotiations as to contracts.”¹

Several members of the Public Accounts Committee questioned Dr. Addison on the advisability of thus concentrating the highest Contracts function and the highest Finance function in the same person. The Contracts branch, which at the War Office had been responsible both for supply and prices, had already been denuded of a large part of its Supply function. There remained the responsibility for keeping prices down and guarding the interests of economy against possible extravagance on the part of the Supply branches. But if all responsibility for financial terms was transferred from the head of the Contracts department to the chief financial officer, it was difficult to see what duty was left to Contracts, beyond those of a mere legal and recording section. In so far as the fixing of prices, as distinct from supply, is the essential Contracts function, Dr. Addison admitted that Mr. Lever was in effect Director of Contracts. He said :—

“ The Contracts department, in respect of cost, here is a part of the Finance department, and I hold Mr. Lever responsible, not Mr. Hanson, the head of the Contracts branch. I hold Mr. Lever responsible as to the financial terms of the contract.”²

Dr. Addison emphasised his point that the responsibility for price should not rest on the officer responsible for the delivery of goods. “ The Director of Contracts ” (under the normal system) “ does both, and I think that is undesirable.” In so far as the responsibility for delivery had already passed from Contracts to Supply, this separation was already in force before Mr. Lever’s appointment. The new feature in Dr. Addison’s system was the removal of the responsibility for price also from the head of the Contracts department and the transference of it to the chief Financial officer. He did not reply to a point which might be urged, namely, that the Director of Contracts, as an executive officer, ought to be subject to the outside criticism of the Finance department, especially in respect of abnormal contracts involving loans, advances, housing schemes, etc. If the Accounting Officer is himself responsible for all the most important negotiations and bargains, this independent criticism is lost.

The Chairman of the Public Accounts Committee asked the opinion of the Comptroller and Auditor-General on the principle of Dr. Addison’s system. Sir Henry Gibson replied :—

“ Sir Guy Fleetwood Wilson, when appointed Accounting Officer ” (at the War Office), “ was made Director-General of Finance, with the Director of Contracts placed under him ; but, although nominally supreme, he certainly took no active share in the contract work, and after a short time the War Office reverted to the system under which the Director of

¹ P.A.C. Report (1916), *Minutes of Evidence*, Qn. 2835.

² *Ibid.*

Contracts was removed from the supervision of the Accounting Officer. I do not think, as a normal rule, it would be advisable to make the Accounting Officers have the supervision of the contracts either at the War Office or the Admiralty. There is no doubt that this new system which Mr. Lever has been describing to the Committee has not been in force either at the War Office or the Admiralty."

"And it has been in force at the Ministry of Munitions under wholly abnormal conditions?"—"Yes."¹

This concentration of functions in a single individual, besides being questionable in principle, must be regarded as partly the cause of what can only be described as the breakdown of the Finance and Accounts side of the organisation in the course of 1916. During this year the activities of the Ministry were expanding with extreme rapidity and spreading to a great variety of matters only indirectly connected with contracts and manufacture, such as salaries and wages, insurance, housing schemes, purchase of land, canteens and welfare expenditure generally, all of which called for financial criticism and control. As the total expenditure rose towards an average annual figure of £600,000,000, the purely financial questions of estimates, forecasts of expenditure, exchanges, and the general responsibility of the Ministry to the Treasury became more intricate and important. At the same time, the change in the character of the business, involving the control, purchase, and distribution of raw materials, was rendering the whole system of accounts obsolete. It was impossible for any one man to divide his attention between intricate contract negotiations and all the multitudinous interests of finance, without leaving many questions of the first importance to subordinates, who, as subordinates, could not reply on equal terms to heads of departments having direct access to the Minister. Mr. Lever, as Assistant Financial Secretary, undertook the investigation of costs and the reduction of prices. In this field he was able to achieve a great success, but only by giving nearly his whole time to the task. The result was that the accountancy side of the Finance department, overwhelmed by the influx of business, novel in character and enormous in volume, fell into a state of serious confusion.

¹ P.A.C. Report (1916), *Minutes of Evidence*, Qn. 2934.

CHAPTER II.

STORES AND ACCOUNTS, 1915-16.

I The Transformation of the Ministry's Business.

The last chapter was mainly concerned with the higher finance organisation of the Ministry and the causes, some of them inevitable in a state of war, which account for its weakness in the initial stages. When we turn to the whole group of functions which fall under the head of Stores and Accounts, another and equally important aspect of the Ministry's problem comes into view.

The fundamental fact here is that the nature of the business which the organisation was to deal with was transformed within the period under review (1915-16). It was not merely a question of an enormous increase in the number and value of contract purchases conducted on familiar lines. If that had been the only change, the financial staff could have been expanded so as to keep pace with the increase, and no serious difficulty or confusion would have occurred. All the trouble arose from the fact that, while the work of a normal type was multiplying itself very rapidly, at the same time the whole character of the business was no less rapidly undergoing a metamorphosis into a type which called for a correspondingly radical change of all existing methods and also for the creation of fresh organs of administration.

Three principal features of this transformation may here be mentioned. In the first place, with the almost complete disappearance of competition, the whole basis of contract prices was shifting from the old method of placing orders on the lowest tender to the new method of fixing prices by cost of production. This had reactions which were felt in the Finance department, and in particular it demanded the creation of machinery for ascertaining, recording, and comparing costs. Such machinery was actually developed partly by Supply and partly by Finance. The Supply department instituted a branch for the estimation of "technical costs." On the Finance side, Mr. Lever, under his original charter of August, was charged with the installation of cost accounting in the National Factories, and the results obtained were used in the winter of 1915-16 as an instrument for the reduction of contractors' prices. This costing organisation was thus subservient to the Contracts function of fixing prices, and the treatment of it will be reserved to a later part of this volume.¹

The second new feature which must be mentioned here will also

¹ See Vol. III., Part II.

require separate treatment under the head of the financing of production.¹ This includes all the expedients for creating new sources of supply, at first by giving financial assistance to contractors, and later by the establishment of National Factories operated by the Ministry or by its local agents. These new departures, which had begun under the War Office regime, ought, if time and other circumstances had allowed, to have been accompanied from the outset by the development of a corresponding system of commercial accounts by double entry, alongside of the old system of contractors' personal account ledgers. When the Ministry took over the business, no such system had even been begun. Thus, among the burdens thrown upon the infant Finance department was the task of revolutionising the basis of a large and rapidly growing portion of the book-keeping. Some earlier attempts in this direction will be described presently ; but the revolution was not carried through till 1917.

The third aspect of the transformation concerns the immediate subject. Stores organisation and Stores accounts. The need here had its origin in the formation of Co-operative Groups for the manufacture of shell bodies on a small scale by a large number of new contractors. As the smaller firms found a difficulty in obtaining minor parts and materials, the Ministry, in order to prevent competitive buying and to enable them to reduce prices, undertook the supply of materials and components. This was extended to other contractors and to the National Factories, and as time went on this function of the Ministry as a selling and distributing agency was steadily increased by the control, purchase, sale, and issue of essential metals, iron, steel, copper, zinc, aluminium, lead, etc. By the end of 1916 the Ministry was already the largest selling, as well as the largest purchasing, agency in the world. But it must be remembered that this development was not foreseen at the beginning, and the work grew much faster than the organisation to deal with it.

Some idea of the consequences of this change may be conveyed by a concrete illustration. The small arms cartridge is an example of a store which, before the War, was purchased complete from trade makers and passed straight from their works into the Ordnance Store. With all the processes and movements that lay behind the production of the cartridge the War Office was totally unconcerned. The accountancy entailed by the purchase came to little more than an entry in the Store record when the goods arrived, and an item in the personal account of the supplying contractor. The total of the account would ultimately be carried to a Sub-head of Army Vote 9, and the whole transaction would be written off.

When the scene is shifted to 1918, we find this simple transaction resolved into elements whose number runs to many scores, while their collateral implications might be followed into hundreds, in every one of which the Ministry is directly concerned. The transactions, moreover, are of several different types—purchases, sales, movements—which defy any attempt to record them in single entry books.

¹ See Vol. III., Part III.

The following description is summarised from a memorandum written in May, 1918.¹

The main components of the small arms cartridge are :—(1) the brass case ; (2) the bullet, made of lead in a cupro-nickel envelope ; and (3) the propellant.

(1) For the brass case, the Ministry buys copper and spelter. Usually special arrangements have to be made for purchase abroad, and frequently the Ministry has to buy G.O.B. spelter and zinc concentrates and to arrange for refining. When copper and spelter of suitable quality have been obtained, they are sold to brass-founders, who cast ingots of brass and roll them into strips. These firms sometimes perform the operation known as cupping ; but, as a rule, the makers of small arms ammunition receive the strip, and themselves carry out the numerous operations needed in the manufacture of cases. These processes leave a considerable amount of "webbing" and "swarf." This the Ministry buys back, and arranges for the use of it in further manufacture of brass strip.

(2) For the bullet, the Ministry either buys the lead and sells it to the small arms ammunition makers or arranges for supplies to be available. The cupro-nickel envelope is made of copper and nickel, which the Ministry buys and sells again to makers of cupro-nickel strip. It passes through processes similar to those applied to the brass for the case ; and once more large quantities of webbing and swarf have to be recovered and turned to use.

(3) The propellant is either nitro-cellulose or cordite. The nitro-cellulose we import from America ; the cordite is made from nitro-glycerine and gun cotton, either ether and alcohol or acetone being used as a solvent. For the nitro-glycerine, special steps are taken to secure fats and oils for the manufacture of soap and glycerine (the one being a by-product in the manufacture of the other), and to secure the importation of sulphur pyrites and nitrates. The Ministry has also had to provide for sufficient supplies of acid.

For the gun cotton the Ministry has to secure supplies of cotton waste of the proper quality and of acids. Acetone is made from acetate of lime, obtained by distillation of wood. All these constituents are bought by the Ministry and sold to the cordite makers, who supply the cordite to the small arms ammunition makers. When, owing to shortage of acetone, ether and alcohol have been required, the whisky supply of the country has had to be reduced.

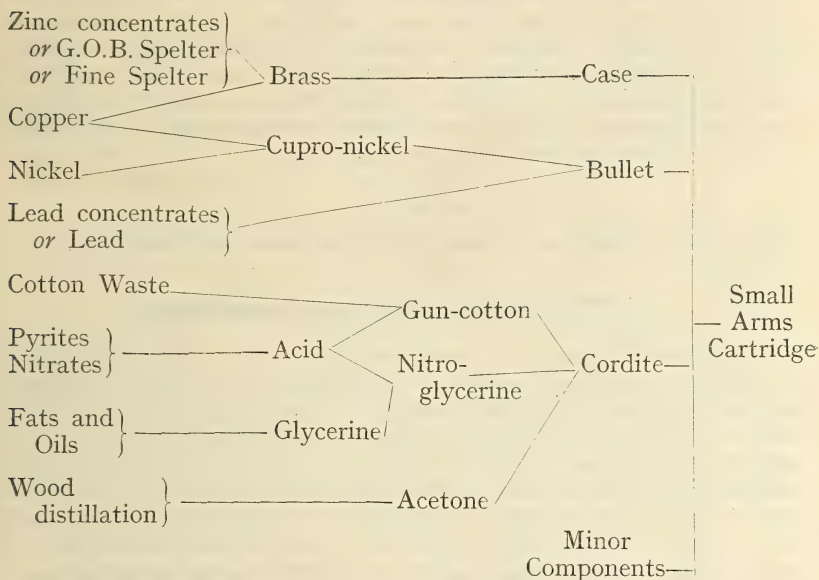
There are a few minor components, which involve the use of fulminate of mercury, felt, etc. At a time when there is a shortage of all materials, special arrangements must be made for the supply of all these products.

Formerly the bullets had an aluminium tip. For lack of aluminium, paper had been substituted. Special supplies of paper, made from manila rope fibre, are obtained and passed on to makers of paper rod, who supply the small arms ammunition manufacturers.

¹ By Mr. Watson, Controller of Departmental Finance, who, both at the War Office and at the Ministry, had been continuously concerned with munitions contracts. D.F.3/P.A.C./71.

For nearly all these operations the Ministry has had to provide manufacturing plant. It has subsidised spelter-refining works, casting and rolling works for both brass and cupro-nickel, works for the manufacture of acids and cotton waste, and wood-distillation plant for acetone. Finally, works for the manufacture of small arms ammunition from the components have been enormously extended.

The following table illustrates the complexity of processes and products that result in a small arms cartridge :—



This summary omits the clips or chargers in which the cartridges are placed before use, the cotton bandoliers in which it is served out in the field, and the boxes in which it is packed.

The above diagram, besides suggesting the nature and extent of the accounts problem, might also be adapted to illustrate the scheme of yet another piece of administrative apparatus which the Ministry had to bring into existence, namely, the Stores organisation. For the genealogical lines connecting each ultimate constituent of the cartridge with its posterity might be substituted lines to represent physical movements. The copper, for example, would start from an American mine, cross the Atlantic, and be carried from the port of arrival to the manufacturer of cupro-nickel strip. From thence the new product must move on to the works where the bullet was made by combining the cupro-nickel sheath with the core of lead, this latter substance having travelled from another quarter by a different route. The bullet itself was then combined with the case, the explosive, and other minor components, each of which again had behind it a record of travel through an equal or perhaps a greater number of stages. The lines representing these movements must further be subdivided by a

larger or smaller number of dots, representing the ships, railway trucks, warehouses, stores, and bonds, where the material rested on its journey from process to process of manufacture. If the diagram were completed so as to embrace in the picture every unitary transaction, it would become so complex that a reproduction on this page could only be read with the aid of a microscope.

For accounting purposes, each of these units stands for some fraction of the total cost of the cartridge, and involves a money payment. An ideal system of accounts might be regarded as a function of the completed diagram, accurately reproducing its complexity. The fundamental problem of the Accounts department was to approximate to that ideal. Its starting-point was a collection of Personal Accounts ledgers, in which the whole of the transactions outlined above were condensed into entries of the type—

£ s. d.

To x thousand S.A. cartridges

and which was inherently incapable of recording anything else.

II. The Elements of Stores Organisation.

The general head of Stores organisation, in the wide sense, includes a number of different functions, which can in practice be distributed, not merely among different branches in one department, but among different departments, such as Supply and Finance. In this field, as in those of Contracts and Accounts, the theory and practice of the Ministry oscillated between the poles of concentration and decentralisation, moving first towards concentration in one Central Stores department, and later showing a tendency towards decentralisation, not in the sense of redistributing the functions among different departments, but in the sense of splitting the Central Stores department into a number of sections, each associated with a section of Supply, and containing in itself all the Stores functions relating to a particular class of goods. Among the possible principles of organisation there are three alternatives to be considered :—(1) a Central Stores department exercising *some* stores functions for *all* classes of goods, other functions devolving on Supply ; (2) a Central Stores department exercising *all* functions for *all* classes of goods ; and (3) a number of self-contained Stores sections, subordinate to Supply sections, and each exercising *all* functions for *one* class of goods. In order to make these alternatives clear, it will be convenient first to distinguish the functions before stating how they were combined. This analysis will be made with reference to the Ministry's business, not as it appeared at the outset in July, 1915, but such as it came to be in the course of 1915-16.

(1) *Storage*.—The first requirement is the provision, maintenance, and administration of storage premises. These must be situated at convenient points on the main arteries along which the flow of material passes, and they must be equipped with the mechanical apparatus for measurement of quantities. They are required at ports, in some cases within the precincts of factories, and at intermediate points.

There must also be Inspection Bonds at the terminal points, where a complete article or a finished component passes out of the maker's hands.

(2) *Movement of Stores.*—A second function, which may be exercised by a separate authority, is the release of material from any of its halting places and the moving of it to the next. This is effected by means of a whole apparatus of forms—Issue Warrants, Transit Notes, Advice Notes, Inspection Notes—each of which must be multiplied, so that every party to the transaction—the consignor, the consignee, the transmitting agency, and every operating, recording, and accounting section at headquarters—may possess the documentary evidence by which a claim may be vouched and checked. The efficiency of the whole system depends entirely upon these forms, the completeness and accuracy of the information they furnish, and the promptness with which they are transmitted.

(3) *Stores Records and Accounts.*—At the outlying branches of the system, the local records of each Store must be kept by a staff sufficiently trained to measure and register accurately the quantities of incoming and outgoing material. These local records must be subject to check by a central record compiled from a duplicate set of the evidential documents, and by periodical stock-taking and audit. The function of the central record is primarily to show where any given quantity of material is at any moment. This information is, of course, required by all the departments interested—the Supply section, which knows where the material will be wanted next, the section which orders the movement, and the Finance sections, which register and complete the consequent monetary transactions. Duplication of the central record can be avoided only by very close co-operation.

Finally, the monetary aspect of the whole complex is reflected in the Accounts, which, as a function of Stores Records, are inevitably vitiated whenever any one of the evidential documents is incomplete or incorrect, or goes astray, or is delayed, or is never forwarded at all. It should be remembered that the accounts depend ultimately on the punctual and exact performance from day to day of duties which rest, not only with other departments in the central organisation, but also with thousands of contractors owning no official responsibility, whose accounting staff may be of any degree of efficiency or inefficiency, and who may neglect to fill in their link in the chain and so delay or vitiate the record at every subsequent stage. This unavoidable factor was among the causes of those confusions and arrears for which the Accounts department had to bear the blame.

It is not too much to say that not a single one of the conditions indicated in the preceding paragraphs, as essential to the smooth running of a Stores organisation, was, or could be, fulfilled in the first year of the Ministry's existence. At the outset, in all the rush and pressure of rapidly increasing current work, the whole system, from one end to the other, had to be created in a few months, and created out of chaos. The physical storage did not exist; the local staffs had to be collected; the local records devised and installed; even weighing

machines—a small, but vitally important link in the system—could not be obtained in sufficient quantities. The apparatus of forms required to effect and record the movement of goods had to be drawn up, and the contractors, some of whom lacked the intelligence to see that at least six copies of the same Advice Note were indispensable, trained to fulfil their part in a system inevitably far more complicated than any to which they were accustomed. To crown all, the urgency of production led at times to officers of Supply departments personally removing materials from Stores to Government or trade factories without either keeping or instituting any record. At the same time, the Central Stores records had to be evolved out of an old set of ledgers which were not designed for the new complexities of the business and a central staff recruited to create and maintain them.

III. Storage.

During the first year of the War, deliveries and inspection of finished munitions and of components were centralised in the main Army Stores under D.D.O.S. at Woolwich, and the Stores for small arms at Weedon, under the Chief Ordnance Officer.

In the summer of 1915, not only had the difficulties of railway access and shortage of inspectors caused very serious congestion, but the trained store-keeping and accounting staff were overwhelmed by the volume of work. It was necessary to engage untrained assistants, and the offices were open day and night, while the staff worked in reliefs. On this most important side of its business, the Ministry suffered from having to begin its operations with a system which had already broken down and was labouring in confusion and arrears. Even if the organisation had been equal to its task, there were still transactions which, in the extreme pressure of the time, could not be passed through its routine at all. There was such a shortage of some materials that imported goods were unloaded straight from the ships into special trains, and despatched immediately to contractors who were working up to the last few tons of their stock. For weeks at a time the daily output of certain natures of shell was sent direct from the makers' works to the Army in France. There was no time for accurate accountancy. Materials were moved where necessity dictated, from ship to Store, from Store to contractor, or from one contractor to another; and often instructions were given by telephone or telegram which might or might not be afterwards confirmed in writing.

The Finance department was not slow to call attention to the Ministry's need of a Stores organisation to supplement Woolwich. It is true that at this time the purchase of raw materials was only beginning. The first purchases on a large scale were made in July, 1915, when some thousands of tons of spelter were bought and distributed direct to contractors; but this transaction was regarded at the time as an isolated instance of assistance rendered to firms who found difficulty in obtaining material. No one could yet foresee the extent to which this side of the business would develop. The focus was still mainly on gun ammunition and components.

As early as 18 July, Mr. Dannreuther proposed that a Stores department, on the lines of the Army Ordnance Department, should be established under the immediate control of the Director-General of Munitions Supply. The substance of this minute may be quoted, since it illustrates the scale of operations then in view.

Mr. Dannreuther observed that Woolwich could, no doubt, continue to deal with guns and carriages, and possibly with small arms ammunition, and Weedon could deal with rifles and machine guns; but Woolwich was already congested and could not handle more gun ammunition than was coming in under old contracts and extensions of them. For gun ammunition, final assembling and packing, a new Store was needed at some convenient railway centre in the Midlands. A Store was also needed for materials and machinery, probably at Liverpool. All such supplies from abroad (and from home, unless consigned direct to works) would be received there, or at least taken on ledger charge so that the purchase expenditure might be cleared. Issues could be made from there, priced vouchers being forwarded to the Ministry for recovery from consignees. A further Store was proposed for gauges and similar articles at Teddington, where the same accounting procedure might be followed. Mr. Dannreuther suggested the appointment of an experienced Store officer (perhaps an ex-officer of Army Ordnance Department) on the staff of the Director-General of Munitions Supply, to inaugurate the various depots and provide the administrative staff. If the ledgers were kept by Stores accountants under him, but also responsible to Mr. Dannreuther, a separate audit could be avoided. Mr. Dannreuther proposed that the War Office should be consulted to see whether they could provide the "new Woolwich" or would prefer to leave it to the Ministry.

At this time, owing to the shortage of every class of munition at the front, it appeared unnecessary to provide storage for very large quantities of shell, since it was sent forward as fast as it was made. The two Stores originally established were intended only as forwarding bases for the shell produced in the larger centres of manufacture. A further development of this scheme was the proposal that the country should be divided into four or five provinces, each supplied with a central Store to receive the munitions and forward them to ports of embarkation for the front.

Communications with Woolwich led to a conference on 30 August, at which the place of the Ordnance Stores in a general scheme for the storage of gun ammunition components was settled. As a part of this scheme, a Stores section was formed in the Gun Ammunition Filling Division under D.D.G. (C). Mr. Newman, who was in charge of it, worked out a system of forms to govern the circulation of this class of stores,¹ though it did not apply to stores under the control of the Explosives department, which had already a system of its own. At the same time, the new section began to find sites and

¹ This system was almost immediately modified to conform to the general arrangements described below, Section IV.

premises for Stores in various parts of the country. By January, 1916, this section was controlling 22 Stores, and others were being acquired at ports for overseas consignments. At this date another department, under D.D.G. (A.), was providing local Inspection Bonds for components, in order to relieve the congestion of inspection at Woolwich. There were thus three separate Stores organisations for gun ammunition alone: the Explosives department, handling explosives and propellants; D.D.G. (A.), dealing with mechanical components from all sources up to their inspection; and the branch under D.D.G. (C.), taking these components and dealing with the storage and distribution at further stages up to the delivery of complete ammunition to the Army Ordnance Department. Mr. Kissane, of the Admiralty, took charge of the last-named branch in January, 1916. Later, Sir Frederick Black requested him to undertake the storage of raw materials. The use of the same Stores for components and materials was not an ideal arrangement, since different appliances are required; but in the then shortage of accommodation it could not be avoided. Finally, the same branch was charged with the receiving and forwarding of all munitions stores at ports. In this way the branch came to hold the great majority of Ministry stores. Other Supply departments, however, were meanwhile taking independent steps for the storage of other classes of material, and the organisations multiplied until they were all brought under a Director-General of Stores in 1917. There were by that time 95 Stores and Bonds in existence.

IV. Stores Records and Accounts.

It will be remembered that the first item in the list of duties assigned to Mr. Lever in August¹ was

“the devising and installation of a general system for the keeping of Store Records, covering materials and components purchased by or on account of the Department, in order that there shall be a proper check on goods purchased and distributed. This will include returns both from independent factories to which materials or components are supplied and from controlled or owned factories.”

Acting on these instructions, Mr. Lever formed a staff which, under his general supervision and the immediate direction of Mr. H. G. Judd, devised a system of Stores records and forms. It was decided that the official and authoritative record should be kept at headquarters by a Chief Stores Accountant. The reasons for this decision were that there would have been great difficulty in recruiting efficient assistants to keep local records upon which reliance could be placed, and that it was thought that the certification of bills could be more quickly carried out at headquarters, so that there would be less delay in settling the suppliers' claims.

¹ See above, p. 20.

A scheme of Stores records, Issue Warrants, Advice Notes, and Inspection Notes was drafted and explained by Mr. Judd at an inter-departmental conference on 7 September, 1915.

It was decided at this meeting that the actual issue of stores was to be controlled by six different departments (excluding Explosives) :—

(a) Raw materials	.. ..	A.M.2	..	Mr. Llewelyn
(b) Heavy gun ammunition	.. ..	A.M.3	..	Mr. Fowler
(c) Shell filling and components	.. ..	A.M.4	..	Mr. Newman
(d) Machine tools	.. ..	A.M.5 M.T.	..	Mr. Herbert
(e) Gauges, etc.	.. ..	A.M.3R.	..	Mr. Ryan
(f) Trench warfare	.. ..	T.W.S.D.	..	Mr. Roger

Foreign shipments were to be under a new section in Mr. Geddes department, which was to advise each department concerned of their arrival, and take instructions for their disposal.

It was considered that other departments, which did little more than find supplies for Woolwich, would need only records of contracts. The system was designed to record :—(a) transactions with contractors, which were to be verified in co-operation with the Finance department ; (b) quantities and disposal of goods, to be checked against the actual quantities vouched by local Store records ; and (c) every movement of goods, supported by certified vouchers. There was also to be a record of plant, machinery, etc., belonging to the Ministry and lent to contractors.

The system was to be decentralised in the sense that each of the six departments above mentioned was, like the Explosives department, to keep its own records ; but it was decided that one or more Stores accountants should be told off to each department to supervise these records, test their accuracy, and check them against the record of goods actually in store. Mr. Lever was to have all facilities for installing the system alike in the departments and at the Stores, and to supervise its operation in the meantime.¹

On further consideration, however, it was realised that this decentralisation of Stores accountancy, however convenient to the Supply departments, would inevitably lead to trouble on the Finance side. The difficulty would be to provide a proper accounting link between the deliveries made by contractors on instructions received from a number of different departments and the payments for such deliveries made by the Finance branches. It was accordingly determined to centralise the accounting for all contract deliveries in a Chief Stores Accountant's department. Lieut. Alfred Lewis, who was appointed head of this department, had assisted Mr. Judd in devising the system of evidential document above referred to, which remained in use, without substantial modification, throughout the Ministry's history. In the case of documents which have to serve so many different purposes, the simplest form must necessarily present a formidable appearance of complexity. When the new forms were at

¹ See *Stores Organisation and Accounts*, September, 1915 ; HIST. REC./R/263.4/10.

last devised, approved, and printed, the Chief Stores Accountant had still to encounter some resistance to his efforts to impose the use of them upon the departments and the contractors. The hastily recruited staff of the Ministry was drawn from business firms, and every head of a department or branch had his own ideas of the methods of recording the purchase and delivery of the materials in which he was interested. There was a similar diversity of methods among contractors, who saw no need to depart from the familiar War Office forms and were reluctant to master the details of this novel array of complicated documents. A considerable part of the Chief Stores Accountant's time was at first taken up in explaining the forms to contractors and persuading them that a punctual use of them would expedite the settlement of their accounts. The opposition was thus gradually overcome, and it was found that within three months of its inception the system was already being copied by business firms for their own purposes.

There is no theoretical objection to a system of Stores organisation under which the control of the custody and of the movement of goods is decentralised and located with the departments responsible for the several classes of supply, while the Stores accounts for the whole are centralised in a Finance branch. But for such a system it is essential that the decentralised parts of it should work on a perfectly uniform plan and supply the Accounts side with prompt and complete information. It is not to be expected, moreover, that the system should work harmoniously unless all parts begin their operations simultaneously, with the clearest possible delimitation of their several functions. These conditions were not satisfied. The departmental sections for the custody and movement of stores got into working order before the Chief Stores Accountant's central branch could be formed and set going. Hence these departments found it necessary for their own purposes to record their own store transactions, with the result that duplicate records existed at headquarters for almost every class of stores. This had a bad moral effect in rendering the Supply departments unduly independent of Accounts, which, in its turn, was unduly dependent upon them. Another unfortunate result was that the local storekeepers, who were under a dual control, rendered more allegiance in matters of accounting to their immediate superiors than to the Chief Stores Accountant, whose independent authority should, in theory, have extended to every local ramification. The Chief Stores Accountant was meanwhile contending with all sorts of accidental difficulties, such as lack of accommodation, the hindrance of an untrained staff, the difficulty of obtaining expert supervisors and of establishing a new system in the midst of a turmoil of transactions.

The effect of all these disabilities was that the Central Stores Account record, which had been intended to be the master document of the whole system, and was relied upon throughout 1915-16, became less and less complete. The volume of transactions increased, so that in this period it amounted to the receipt and issue of £500,000,000 worth of stores. Advice and Inspection Notes went astray through the inexperience of local Stores officers or the negligence of contractors; and the Central record became more defective than the

local records, whose deficiencies were chiefly due to mistakes of local officers over whom the Chief Stores Accountant had not proper control.

A further cause of certain arrears was the failure to fix the responsibility for invoicing contractors for goods delivered either direct from other contractors or from Stores. Until January, 1916, when the storekeeping of gun ammunition components was transferred from Woolwich to the Ministry, this had been done by D.D.O.S., Woolwich. At the transfer there was a misunderstanding between the Stores Accounting branch and the bill-paying branch in the Finance department, with the result that from January to June, 1916, certain components purchased at home and delivered direct to contractors were not invoiced to them at all. This gap was not discovered till May, 1916, and it was necessary then to create a special staff, which wiped out these arrears by the end of September, 1916. This staff formed a Central Invoicing section which, with comparatively small changes, remained in being till the end of the War. In spite of very great difficulties, due to lack of information as to issues made and terms of issue, it did perform the function of invoicing issues both from Stores and from contractors' works, though there were, up to the date of the Armistice, very serious omissions.

V. The Issue of Materials.

Another element in the Ministry's business which caused very serious confusion in the accounts was the issue of materials to contractors. It was at first assumed that all such issues would be paid for on receipt of the material, and this rule was laid down on 9 September, 1915, even in the case of contracts for filling shell, fuzes, etc. On the other hand, it was prescribed that when filling work was done at National Factories the material should be issued "free."¹

It soon became necessary to modify this practice. In November the Finance department stated that very few contractors were prepared to pay cash for material, and they proposed that in future contracts payment should be arranged for on the "*per contra*" system, by deduction from bills. This was approved by Mr. Lever; and instructions were issued that the system of recovery *per contra* was to be adopted "as a general rule," care being taken to see that the financial standing of the contractor was unquestionable.²

There were thus, almost from the first, three different bases for the issue of materials: "cash issue," "*per contra*," and "free issue."

The system of free issue for filling operations was soon extended from National Factories to contractors. One reason for this extension, urged by the Supply and technical departments, was that there was a risk of contractors making money by either reducing the quantity or adulterating the quality of the explosives in ways very difficult to check by inspection. Thus, by filling shell with 45/55 Amatol instead of 40/60 Amatol, a contractor, if explosives were charged to him, could

¹ Contracts Branch Memorandum, 12 (7/9/15). 94/Gen./210.

² Contracts Branch Memorandum, 29 (25/11/15). 94/Gen./234.

increase his profit from 10 per cent. to 70 per cent. on the cost of filling. Further, the value of empty components and explosives was very great in proportion to the cost of filling.¹ The technical branches of the Ministry, moreover, were unable to lay down scales of material required for varying operations of manufacture. Hence a large saving could be effected by fixing a price for the work actually done and excluding the components and explosives supplied by the Ministry. Since, moreover, there was practically no market for components and explosives, there was little temptation to fraud or theft, such as existed in the case of other materials, *e.g.*, steel, which could be diverted to many purposes.

From the accounting point of view, objections were raised to this system of issue. It was found difficult to secure that contractors did not use larger quantities of explosives than were needed, and to keep any proper check upon wastage. The Finance department pressed for all such issues to be on repayment. After several conferences, however, it was decided by Mr. Lever, in July, 1916, that the free issue system should be continued, with certain added safeguards. All contractors were to render a full account of materials used. Representatives of the Inspection department were to certify requisitions for explosives, to supervise filling operations and check waste, and to certify monthly returns rendered by contractors of their expenditure of explosives. The contractors were to provide suitable storage and give facilities to the Ministry representatives.

The saving effected by the free issue system may be illustrated by the case of a large firm which, up to August, 1916, had been charged for explosives. Under that system, their margin for head office expenses and profits (after allowing a large percentage of wastage) was 13s. 6d. per 100 Block Charges, and 20s. per 100 lbs. Amatol. When fresh contracts were negotiated on the free issue basis, these charges were reduced to 3s. 5d. and 3s. 11d. respectively.

The Accounts branches, however, continued to suffer from the effects of this diversity of methods. They were constantly hampered by uncertainty about the terms of issue. Many of the earlier contracts did not fix any price at which components were to be supplied; and as the distributing function of the Ministry was extended, very large quantities of materials of various kinds were issued without any terms being fixed at the time. In many other cases, where prices had been fixed in the contracts, the Supply departments, under pressure to secure rapid production, authorised issues outside the terms of the contracts, and supplementary information did not always reach the Accounts branch concerned with passing bills. So long as this went on there could be no financial record of the transactions.

One more illustration may be given of the inadequacy of the old accounting system to deal with the new types of transaction. A large number of contracts were being placed for the production of semi-manufactured materials, such as brass rod, steel, or shell forgings,

¹ Thus in November, 1917, a filled No. 80 fuze cost about 11s., while the filling cost about 1s. A filled and assembled 18-pdr. H.E. shell cost about 45s.; filling and assembling, about 1s. 1d.

which were issued direct from the contractor to other contractors, who used them for carrying out further contracts for subsequent processes. Under the system in use in 1915, the payments for such intermediate issues from contractor to contractor were, as a rule, made, not by the Ministry, but by the consignee contractor. For instance, the Ministry would have a direct contract with X Company for forgings. The Company would supply forgings to (1) a National Shell Factory, which paid the company direct; (2) a machining contractor, who again paid direct; (3) an Unassisted Committee, which forwarded the bill to the Ministry for payment; and (4) an Assisted Committee, which paid direct. The result was that the supplying company was often in doubt whom it should invoice, and, worse still, the contract ledgers at headquarters were incomplete, since the payments and deliveries recorded did not show the total transactions. Attention was called to this defect early in 1916, and it was remedied by the issue on 30 May, 1916, of a circular announcing that thenceforward payments in respect of all supplies of material under contracts with the Ministry to National Factories or Ministry contractors would be made direct from the Ministry.¹

There was another danger in the old procedure, arising from the practice of issuing material in some cases "free." Thus a fuze-maker might receive so many tons of brass rod for conversion into fuzes. No charge for the material would be made against him, and, of course, when he passed the fuze on to a filling factory he was not entitled to raise any corresponding charge himself. Cases, however, occurred in which such charges were made and paid by the receiving factory or contractor, who would not know on what terms the consignor had originally obtained the metal. So long as these intermediate payments did not pass through headquarters there was no check on such acts of fraud or error.

Finally, the form of Public Accounts, which must somehow state the outcome of all transactions in the shape of charges against sub-heads of the Munitions Vote, was altogether unsuited to the transformed business of the Ministry. Mr. Watson raised this point at the outset in October, 1915. The complete shell containing the fuze would be finally charged against the sub-head containing shells. In that charge all the earlier charges for the original materials, as well as for every intermediate process of manufacture, were, so to say, condensed in a final total. The material, consequently, could not be charged a second time against sub-head (6) "Materials." The total under this sub-head, therefore, gave no indication of the volume of purchases of materials, which would naturally be sought there. Deficiencies of this kind could only have been remedied by such a recasting of the whole system of internal and Public Accounts as was taken in hand in 1917-18.

As early as February, 1916, immediately after the institution of new ledgers which admitted of a full record of transactions, the Finance department realised that, owing to the disabilities above described, the

¹ 15/Munitions/1343 (M.F.1).

best chance of bringing the records into some correspondence with the actual transactions was to call upon contractors to furnish such information with regard to each of their contracts as would clear up the position and reconcile the contractors' books with the accounts in the new ledgers.

A circular was drawn up and issued on 20 February¹; but it encountered the opposition of several of the largest contractors, who alleged that the labour involved would impair the flow of supply. They appealed to higher authority, and the Finance department was overruled. It may have been thought inadvisable to expose to the business world the weakness of the financial side of the Ministry, and it is possible that supply might have suffered. At any rate the incident illustrates that subordination of the purely financial interest to other considerations which, however justifiable, weighed constantly on the Finance department. As it turned out, the evil day was only postponed. A year later the reconciliation had become imperatively necessary, and it was taken in hand. Meanwhile, the discrepancies and errors in every quarter were of course mounting up in something like geometrical ratio, and becoming with the lapse of every month more difficult to unravel. The work, when it was begun, had reached the scale of an Augean labour, the performance of which in 1917-18 ranks as one of the great achievements of the Finance department.

VI. The Organisation of the Finance Branch.

The foregoing sections will have conveyed some idea of the troubles that were in store for the Finance department. It is important to realise how weak in numbers was the organisation which had to face them. At 31 August, 1915, Mr. Dannreuther's branch, which was attached to the department of Munitions Supply, was staffed as follows :—

Director	..	..	Mr. S. Dannreuther.
Assistant Director	..	..	Mr. G. H. Duckworth.
1	Personal Assistant.		
1	Principal.		
2	Assistant Principals.		
25	Assistants from the War Office.		
7	Clerks.		

¹ Copy in A.C./77. The information was to cover the period up to 29 February, 1916, and to include the following points :—(1) *Advice Notes*: The total quantity delivered, for which the contractor (a) held Advice Notes certified on or before 29 February, or (b) had not yet received Advice Notes, or (c) held Advice Notes certified after 29 February. The serial numbers, dates, and quantities of Advice Notes covering the last six deliveries under (a). (2) *Material sold to contractors*: (a) description, total quantity and value of goods received by the contractor; (b) money value paid to the Ministry to 29 February, either by cash payment or by deduction from bills. (3) *Payments to contractors*: (a) on account of advances on deliveries; (b) on account of other advances; (c) on account of net payments on bill rendered; (d) date and net amount of last six bills paid. (4) *Inspection Notes*. Total quantities (a) passed; (b) rejected, under Inspection Notes to 29 February. Serial numbers, dates, and quantities of the last six Inspection Notes.

There were at first three branches, in addition to the outlying branch (M.F.3) in the department of Explosives Supply :—

M.F.1.—General financial questions, estimates, liabilities, examination and allowance of contractors' bills, advances, loans, compensation, etc.

M.F.2.—Salaries, allowances, etc., Audit.

M.F.4.—Payments, Book-keeping, Appropriation accounts.

When the new systems of costing and stores accountancy were instituted further branches were added :—M.F.5, Store Accounting ; M.F.6, Cost Accounting ; and M.F.8, Audit of National Factories. The Trench Warfare department contained an Accounts branch, but payments for this class of supplies were made by M.F.1 until January, 1916, when an Assistant Director was appointed in consequence of the fact that Trench Warfare was housed in a separate building.

The weakest point in this organisation was the branch M.F.1, which was charged with a very miscellaneous assortment of duties, some of them of the first importance. The other, more specialised, branches had some chance of keeping pace with their work ; but the main burden of the increase, as well as all the heaviest responsibility for financial policy and control, fell upon M.F.1. From the date (1 October, 1915) when the Ministry finances were separated from those of the War Office, the Director of Munitions Finance requested Mr. Lambert Middleton to take over M.F.1, with the help of Mr. A. E. Watson, who until then had been in sole charge under Mr. Dannreuther's supervision. A fortnight later, Mr. Middleton wrote a memorandum which gives some idea of the extent to which the branch was already overwhelmed by its work.¹

The Finance department, excluding Explosives finance, was spending some £3,000,000 weekly, in addition to payments for munitions bought in America, Sweden, Switzerland, and other foreign countries. In connection with this expenditure, an average number of 1,300 files, minutes, memoranda, and letters daily flowed into the department. The great bulk of these came for financial opinion, and were dealt with by M.F.1, or passed to the Director of Finance or his deputy. Add to this the daily work of interviews with contractors ; telephone conversations with firms and with the Ordnance Factories and National Factories ; discussions with administrative departments or with the Treasury ; letters to the Treasury ; financial statistics and forecasts. The branch, as Mr. Middleton expressed it, was the first line of financial trenches, subjected to the daily onslaught of the Treasury, the Departments, and the public.

Officially, the direction of all this work rested with Mr. Middleton as Assistant Director, with Mr. Watson as his deputy, and with Mr. Noble, who had just joined the staff. As Mr. Middleton was new to most of the work, the whole structure actually rested on Mr. Watson, who alone was conversant with all sides of it and with the background

¹ The Reports by Mr. Middleton summarised here are in an unregistered jacket with the papers of the Financial Advisory Committee.

of the work taken over from the War Office. Mr. Watson rarely left the office till 9 p.m., and often stayed till after midnight. Even when Mr. Middleton and Mr. Noble should have had time to get into the work, it was obvious that two or three individuals could not give a considered opinion on more than a thousand documents a day, and also think out economies, prevent extravagant contracts, and make careful forecasts of expenditure. The clerical staff were also overworked to a dangerous extent. On the busiest day in the week most of the staff stayed till 1 a.m., and several came on Sundays. Mr. Middleton did not propose that any of the work should be split off and transferred to other sections. He recommended a substantial strengthening of the higher staff by the addition of Financial Assistants, who should specially study certain groups of financial questions and so gradually relieve Mr. Middleton and Mr. Watson, and set them comparatively free for the highest duties of supervision and economy.

At the same time, Mr. Middleton proposed that a beginning of reform should be made in the system of book-keeping, which had necessarily been continued on War Office methods. "These books," he wrote, "and the system by which they were kept do not seem suitable to the financial records of the huge commercial and manufacturing enterprise to which this Ministry is committed."

It is worth while to dwell for a moment on the particular defect which it was proposed to remedy at once, because it suggests even to the lay mind some idea both of the growing complexity of the business and of the handicap imposed by the inheritance of the past. Mr. Middleton was careful to point out that no blame attached to the staff or to Mr. Watson, whose suggestions for improvement had only been carried out after a struggle with the Stationery Office.

All (so-called) "Advances" were recorded on one Personal Accounts ledger, instead of being classified in different ledgers, and no balance books were kept. The effect was that, if the department were asked what amount of public money had been lent to contractors, an answer could only be given after a laborious investigation and dissection of every account.¹

"Advances" were of two kinds—money and material; but in the following classification they are not distinguished, since the value, as well as the amount and quality, of material was recorded. Advances, then, fell into four classes.

(1) Advances, without interest, of 80 per cent. of the value of goods delivered before contractors' bills were presented. These were not properly advances, but part payments on delivered but uninspected goods, necessary to enable contractors to keep going. They were, however, entered with the contractors' Personal Accounts, and entirely vitiated the totals.

(2) Advances arranged as terms of the contract, the price being proportionately lowered in return. There were several varieties.

¹ As a matter of fact, even after the reforms presently to be described had been introduced, no answer to this question approximating within millions sterling to the correct figure could have been given before April, 1917.

Usually such advances were up to 25 per cent. of the value of the extract, and without interest. There were also special advances at interest for some particular object (housing, electric power supply, etc.), and, thirdly, there were advances to pay for plant or machinery, some of which were not repayable, others repayable by deduction from bills, others again repayable by fixed instalments.

(3) Advances not under the terms of the contract, but granted later to assist completion. These might be at interest, or without interest in special cases where the Ministry had claimed priority of work and so caused financial stress.

All these different classes were recorded in one ledger. The totals of each account and of the whole ledger naturally gave no indication how much money was really "advanced" and recoverable.

(4) Besides these, there were advances on Imprest to the National Shell, Projectile, and Filling Factories, and to other Government agents at home and abroad. Until the audited accounts were received, these were treated as "loans," and were not properly distinguished from loans to contractors.

Mr. Middleton proposed to create at least five classes of separate personal accounts ledgers, to record:—

- A. "Advances" of 80 per cent. against deliveries;
- B. "Advances" on Imprest to Government agents;
- C. Advances to contractors, with or without interest, whether in the contract or subsequent to the contract;
- D. Advances for special schemes (housing, etc.);
- E. Non-repayable "Advances" (really pre-payments for goods).

Further, a complete system of Balance books, showing monthly totals of all classes of accounts, was indispensable, if the department was to be in a position to answer for its expenditure.

The work was put in hand immediately, and the new Contractors' ledgers and Advance ledgers, with the corresponding Balance books were drafted within the next fortnight. The provision of the necessary stationery of course took some time, not to mention the training of the staff under all the increasing pressure of current work. The new ledgers were installed in January, 1916, and remained in use till the Accounts system was overhauled in the early months of the following year.

Six months after the date of Mr. Middleton's report, the burden resting upon the over-taxed branch M.F.1 had become heavier still. Every addition to the number of Supply departments added a fresh load. The staff had increased from 26 to over 100, but this gain was discounted by the loss of many trained officers taken under the Military Service Act, and the small nucleus who were left spent a great part of their time in educating the new-comers—a task which Mr. Middleton compared to moulding a jug under a waterfall. The most responsible work could not be begun till after office hours. The heads of sections often stayed till midnight, and frequently the rooms were not empty

till 2 or 3 o'clock in the morning. Mr. Middleton thought that a radical reconstruction was required; but the only substantial relief effected was the splitting off of the work connected with materials by the formation of a separate branch, M.F. Materials. Even then, Mr. Lever held Mr. Watson responsible for the supervision of this section, in addition to his duties in M.F.1. A proper expansion of the staff was hindered, among other things, by the lack of accommodation. This was somewhat relieved in July, 1916, when part of the S.P.C.K. building was allotted to Accounts branches. Mr. Watson, in August, again applied for trained staff, and urged that, unless all the personnel in M.F.1 and M.F. Materials were exempted from military service, a breakdown was inevitable.

Mr. Middleton made a further appeal for reorganisation in October, 1916. He proposed that more sections of the work of M.F.1 should be detached and put under the charge of heads with the status of Assistant Director. At this date, the branch consisted of himself and Mr. Watson as Assistant Directors, with six personal assistants, and a staff of nearly 200, who were scattered in different buildings, and its sections were lettered from A to L.¹ Mr. Watson agreed that a breakdown was imminent. He reported in November that the work was deeply in arrears, though the staff were already trying to overtake them. Records were being re-written, in particular those of materials issued to contractors. In the American section there was considerable confusion and discrepancy, due to the loss of Advice Notes and to incorrect Notes, so that the invoicing of consignments to contractors was much behindhand. In the section dealing with advances to contractors, the checking of personal accounts against the balances in the books of M.F.4 was revealing many errors in book-keeping. Mr. Watson also complained that contracts papers were slow in reaching the branch. Contractors were being authorised to proceed months before any formal contract was made, and many months before his branch could pass bills. The terms of contracts were often so intricate that a staff not highly trained found them very difficult to interpret.

These appeals led to the reorganisation at the beginning of 1917, which will be described in the next chapter. This extended to every side of the Finance department's work, and marks a new epoch. In looking back over the record of 1915-16, it is impossible to resist the impression that, when every allowance is made, the accounting work ought not to have been allowed to fall so far behind the growth of the business. Taking the Accounts department as a whole, the staff grew from 35 in July, 1915, to about 600 in June, 1916, and to about 1,200 in December. In the next two years, this last figure was nearly trebled. When the Armistice was declared, the staff numbered some 3,500,

¹ The work of these sections was distributed as follows: A and L, payment of contracts (other than American) for gun and S.A. ammunition; B, payments for National Factories and Local Organisation, etc.; C, Ordnance Factory Vote; D, guns, small arms, transport vehicles, glass, miscellaneous stores; E, issue of materials and components to contractors; F, registration and computation of bills; G, American contracts; H, freight and carriage; J, loans, 80 per cent. advances on deliveries, etc.; K, terms of contracts, liabilities, prices.

though even then it was reported to be insufficient. If the curve representing these figures were compared with the curve of production, it would appear that the staff curve was mounting most slowly during the early period, when the production curve was rising most steeply,¹ and this was also the period during which all the new organs of administration, such as cost accountancy and Stores organisation, had to be developed, and such efforts made as circumstances allowed towards re-casting the whole method of accounts. It must be remembered that there was the greatest difficulty in obtaining from any quarter fresh assistants with the required technical training, and trained officers were actually being taken away for military service. On the whole staff of the Finance department at the end of 1916 there were only 117 qualified accountants. Mr. Lever, who from the first threw himself with great energy into the inauguration of the costing system and the reduction of prices, used for this purpose a proportion of the trained staff which left the Accounts side insufficiently provided. The routine work was in fact to some extent sacrificed to the urgent need of this novel development. This policy can hardly be condemned, since the costing system effected enormous economies which could not wait, whereas the neglect of routine only meant arrears, which, while they entailed a certain irreducible amount of loss, could to a large extent be recovered, when time allowed, by going back over former transactions.

¹ The "outcome" of the Ministry Account may be taken as a rough measure of the increase. The figures for the total deficit met from the Vote of Credit are :—

1 July, 1915, to March, 1916	..	..	£222,703,883	15	7
April, 1916, to March, 1917	..	..	£502,595,641	6	6
April, 1917, to March, 1918	...	..	£639,205,216	7	5

CHAPTER III.

REORGANISATION OF ACCOUNTS, 1917-18.

I. Introductory.

Dr. Addison's term of office as Minister, covering the first half of 1917, was marked by the initiation of a thorough reform of the internal accounts of the Department. Two very burdensome tasks were then undertaken, each of which occupied in its execution nearly the whole of the financial year 1917-18. The first was the overhauling of all the past accounting transactions from the outset to 31 March, 1917, with a view to recovering the money that had been temporarily lost through the confusions and deficiencies of the earlier system of records. It bore fruit, as will be seen, in recoveries to the amount of some £39,000,000. The second was the reconstitution of the accounting system for the future on a commercial basis, by substituting double entry for the old single entry system in use before the War in nearly all Government Departments. Since the method of internal book-keeping was dictated by the prescribed form of accounts rendered to the Treasury and Parliament, this reform led incidentally to proposals for a remodelling of the Public Accounts themselves.

The achievement of these additional tasks implies an astonishing effort. At the end of 1916, the Accounts department, as the last chapter showed, was already overwhelmed by its current work. In 1917 the volume of this work was still increasing, and the difficulties of finding competent recruits for the staff were certainly not growing less. To undertake in such circumstances the transformation of the whole accounting system, for the past as well as for the future, appears in the retrospect as a remarkable act of faith.

Finally, the no less formidable task of carrying these reforms to their logical conclusion was begun in June, 1918. When the system of double entry had been instituted for all current transactions, working up to a Balance Sheet and Production Statement, a special section was formed to reconstruct the whole of the Ministry's books on the same principle from the beginning of its operations to the date (31 March, 1918) when the new system had come into full working order. It was estimated that this undertaking would, under the most favourable conditions, not be finished before the end of 1919. At the time of the Armistice, though considerable progress had been made, the work was still in its preliminary stages.

Before describing these reforms some other changes of a less far-reaching character must be noticed. In the early months of 1917, the latent antagonisms between the aims and interests of Supply, Contracts, and Finance came to the surface, and in particular the grievances of

Finance, which had suffered too long in silence, obtained a hearing. The two principal results were the formation of a Central Stores branch, which may be regarded as a victory of Finance over Supply, and the first of a series of attempts to define the functions and mutual relations of Supply, Contracts, and Finance.

II. Changes in Finance Organisation.

In the highest sphere of Finance organisation, no radical change was made by Dr. Addison, who had indeed, as Mr. Lloyd George's Parliamentary Secretary, been the author of the existing system. The new Minister did not appoint a Financial Secretary, or allocate the Finance work to either of his Parliamentary subordinates. He retained these important functions in his own hands, until on 8 June, 1917, he directed that all references to him upon financial subjects should be addressed by the Finance department to Sir L. Worthington Evans.¹

When, on 15 December, 1916, Mr. Lever left the Ministry to become Financial Secretary to the Treasury, Dr. Addison appointed Mr. John Mann, who had been a member of the Finance Committee on Economy, to be his successor. Mr. Mann had latterly been engaged chiefly in helping Mr. Lever in the negotiation of important contracts and in the supervision of the costing system. It was explained to the Treasury that the reasons which, in Mr. Lever's case, had led to the choice of a professional accountant rather than a Civil Servant for the post of Assistant Financial Secretary, were still considered to hold good.² The Treasury, at the Minister's request, appointed Mr. Mann Accounting Officer.³ The principle of combining the duties of these two offices thus stood unchanged, and Mr. Mann inherited the functions, with regard to contracts, which had been exercised by his predecessor.

In the organisation of the Finance department itself, the most important change was the appointment of a Director-General of Contracts Finance, of equal status with the Director-General of Munitions Finance.⁴ "Contracts Finance" meant the financing of production by means of assisted contracts and the construction of National Factories. The responsibility for sanctioning such schemes had originally rested with Mr. Lever; but in the course of 1916 the method of financing contractors' extensions by means of allowances under the rules governing Munitions Levy had come more and more into use, and the need was felt for some financial check upon the bargains negotiated by the Controlled Establishments division. Also, as various Supply departments originated large schemes for factory construction, proposals of this nature called for co-ordination and control, with respect to finance,

¹ General Memorandum 10. Sir L. Worthington Evans strongly supported the suggestions made for reform in the accounting system.

² Letter to the Treasury, Estab. (W.P.) 5948, 6 January, 1917.

³ Treasury Letter, 781/17, 27 January, 1917.

⁴ The Director of Munitions Finance had been made Director-General from 1 January, 1917.

the choice of sites, design, construction, and the supply of materials and labour. These considerations led the Minister to constitute the Munitions Works Board, whose work will be described later.¹ Of this Board Mr. Palmer, the Director-General of Contracts Finance, was chairman. This institution somewhat lightened the burden of duties which had from the first been concentrated upon the Assistant Financial Secretary.

The internal cohesion of the Finance department was strengthened by the institution of a Ministry Finance Board, "to co-ordinate the work of the Finance department and to advise generally." This was a body of a different character from the small committee of outside advisers which had been appointed by the Cabinet to assist Mr. Lever. The new Board was composed of the heads of the Finance department, whose status was at the same time raised. The members were :—

Mr. John Mann, A.F.S.	..	Chairman.
Mr. F. Palmer	..	D.G. Contracts Finance and Chairman of Munitions Works Board.
Mr. J. Wormald*	} ..	Directors of Contracts Finance.
Mr. H. G. Judd*		
Mr. S. Dannreuther	..	D.G. Munitions Finance.
Mr. O. T. Barrow*	..	Director of Munitions Accounts.
Mr. Webster Jenkinson*	..	Director of Factory Accounting.
Mr. P. Henriques	..	D.D.G. Explosives Contracts and Finance.
Mr. A. E. Watson	..	Secretary.

* With the status of Deputy Director-General. General Office Notice, 89, 6 January, 1917.

Mr. Middleton, Mr. Guy, Mr. Garnsey, and Mr. Robinson of the Treasury were added later to the Board, which continued to meet regularly until the change of Ministers in July, 1917.

The place of the Finance Committee on Economy was taken by a Financial Advisory Committee, the institution of which will be mentioned in due course.

In the sphere of Accounts the impulse towards reform originated in the over-burdened Finance branch M.F.1. In the course of 1916 this branch had been to some degree relieved by splitting off certain sections of its work and transferring them to new branches.² But

¹ Vol. III., Part III.

² At the beginning of 1917 the original M.F.1 was represented by the following branches: M.F.1 (general finance questions, examination and allowance of contractors' bills, advances and recoveries; freight); M.F. Materials (payments and recoveries for materials and machinery); M.F.12 (accounts of J. P. Morgan and Co., and of Imperial Munitions Board); and M.F. Claims. Of these, M.F.1, M.F. Materials, and M.F.12 were under D.M.A., together with M.F.4 (drafts on Paymaster-General, Receivable Orders, Appropriation Accounts, Audit Queries), and M.F.5 (Stores Audit and Stock-taking).

the only important change of this kind had been the formation of M.F. Materials. The heavy responsibility of general financial questions and the ever-increasing burden of the allowance of contractors' bills still rested on M.F.1.

In consequence of the representations recorded at the end of the last chapter, the internal reorganisation of the Finance branches was initiated towards the end of 1916 by Mr. Lever, who requested Mr. J. H. Guy to report on the work of the Chief Stores Accountant and subsequently to co-operate with Mr. Watson in a reorganisation of M.F.1. On 1 January, 1917, Mr. Watson was transferred to the new Assistant Financial Secretary's staff. Owing to the pressure of general finance work, he was unable to do more than advise in the M.F.1 reorganisation.

From the same date, M.F.1 was further relieved by the transfer of a number of functions of a general character ("departmental," as distinct from "munitions" finance) to certain members of the staff who were placed immediately under the Director-General of Finance, and designated D.F.1. By this change M.F.1 at last became a purely accounting branch, whose principal duties were the examination and allowance of contractors' bills and advances and recoveries.

A redistribution of duties within this branch and M.F. Materials followed. This deserves mention because the confusion that had arisen was partly due to the old principle under which the branches had been subdivided into sections, each discharging all the various functions relating to one set of commodities. The unit was thus a ledger clerk who was required to master the whole routine of advice notes, issue warrants, terms of issue, and invoicing, together with his own ledgers. This system had the advantage of corresponding with the organisation of the Contracts and Supply departments, which were similarly divided into sections according to commodities purchased. It thus lent itself to the principle of "decentralisation," in the sense of the possible grouping together of the Supply, Contracts, and Finance sections for each class of store. It had been partially abandoned in July, 1916, when the contract noting and invoicing sections were inaugurated, and early in 1917 a complete functional system was tried. It became necessary, however, to revert to a modified system similar to that existing at December, 1916, but with the addition of safeguards to ensure that the cumulative effect of shortcomings in the basic information supplied by other departments should be focussed in one view, so that it could be forcibly brought home to the defaulters. These changes gradually enabled Mr. Guy and his deputy, Mr. T. L. Judd, to bring to light the points where the several functions involving co-operation with other departments were working badly for lack of efficient co-ordination. The consequence was that Mr. Guy was able to put forward many important recommendations for reorganisation of a more far-reaching character, which will be mentioned later.

III. The Centralisation of Stores Organisation.

It has been pointed out above that the three functions (1) Stores administration, (2) the movement of goods, and (3) Stores records and accounts, may be separated or combined in various ways. At this time the principal Store and Bond operating departments were the two which have already been mentioned; a section of A.M.I, directed by Major the Hon. L. H. Cripps, which administered the Inspection Bonds and reported to the Director-General of Inspection; and the Munitions Store department (C.M.4X), under Mr. Kissane, which held the great majority of Ministry stores. The movement of stores was directed by a large number of Supply departments, whose methods of procedure tended to diverge into a variety which was prejudicial to the accounts. Stores accounting, on the other hand, was centralised in the Chief Stores Accountant's branch (M.F.5) of the Finance department. The first change that was made was in the direction of further decentralisation.

In November, 1916, Mr. Lever requested Mr. Guy to enquire into the system and records of the Store and Bond organisation. Mr. Guy's report was discussed at a meeting on 11 December. It was then agreed that the Store and Bond records kept by the two operating departments above mentioned contained nearly all the necessary data, so that the Chief Stores Accountant's ledgers and records, which had been very necessary at an earlier stage, were now to a large extent duplicates. For the year 1916, however, these last-named records were the best in existence, and it was decided that, when they were completed and their balances as at 31 December, 1916, agreed with the books of the operating departments, they should stand as the official record for the year. An attempt was also to be made to complete the records for October to December, 1915. From 1 January, 1917, the records of the Stores Accounting department were to be discontinued, and the department itself organised on a reduced scale as a Store Audit department. The effect of these changes would be to unite the hitherto divided functions of stores administration and stores accounting, and, with the exception of audit, to complete the decentralisation of the whole system of stores organisation.

These decisions were approved by Mr. Lever, and on 30 December it was announced that Lieut. Lewis (hitherto Chief Stores Accountant) was appointed Chief Stores Auditor for the purpose of checking the records kept in the various branches and seeing that the financial requirements of the Ministry were met. It would be his duty to see that proper vouchers were presented for all transactions relating to receipts and deliveries of stores. He would call attention to any discrepancies or imperfections of method disclosed by the audit, and would assist in instituting ledgers for those departments which controlled Stores, but at present kept no record of their transactions. The Explosives and Trench Warfare Supply departments were, however, excepted from this procedure.¹

¹ General Procedure Minute 60, 30 December, 1916.

Hardly had these changes been announced, when the current of policy took a turn in the opposite direction towards centralisation. Immediately after his appointment as Assistant Financial Secretary, Mr. Mann recommended to the Minister the concentration of all Stores arrangements under a Director-General of Stores. The question was referred by the Minister, on 16 January, 1917, to the Advisory Committee¹ in the following terms :—

“ It has been suggested to the Minister that it is desirable to set up a department in the Ministry, or at least to appoint an individual in the Ministry, responsible for the general supervision and organisation (including auditing and accounting) of all Stores, *i.e.*, those for empty and filled Gun Ammunition components, Trench Warfare, Explosives, Metals and Scrap, etc., and possibly Aircraft.

“ The Minister would be glad if the Advisory Committee would consider this question, and let him have their opinion on the proposal as a whole, and on the relation of the proposed Stores department to the various departments of the Ministry, and to the organisation at the outports for landing and transit of goods.”²

In a memorandum presented to the Committee by Mr. Guy, Mr. Kissane, and Major Cripps, proposals were made for the organisation of the movement of material. The plan suggested was to some extent a compromise, intended to reserve to the Gun Ammunition Filling department the circulation of shell components, the control of which that department regarded as an essential part of its operations. The memorandum, accordingly, drew a distinction between (a) Stores administration and the movement of raw and manufactured material from or into Stores or port ; and (b) the circulation of partly manufactured material (fuze stampings, minor components, etc.).

(a) It was suggested that all existing Stores should be put under the control of a Director of Munitions Stores, and that no new Stores should be set up by any other department. The new Stores department was to control the movement of all raw materials and of all manufactured material accepted by the Ministry, except materials moved from one contractor to another. It was to be responsible for checking the Advice Note with the Issue Warrant, and to see that proper authority was obtained for the issue.

(b) On the other hand, the circulation of partly manufactured material, and the organisation and supervision of the circulating departments in Filling Factories, Projectile Factories, Bonds, etc., should rest with the department responsible for production. Issue Warrants, however, were to bear signatures approved by the Finance department, which was to receive a copy of every Warrant.

¹ The Advisory Committee had been set up under General Office Notice 51 (2 October, 1916), to consider and report to the Minister upon matters referred to them by him or by the Parliamentary Secretaries, and to confer with him or with them when required.

² A.C. Reference 20. A.C./54.

In order to secure uniformity, it was recommended that the Explosives and Trench Warfare Stores should be combined with the Munitions Stores under the Director-General. As will be seen, this last recommendation was not adopted by the Committee.

The Advisory Committee in their report (20 February, 1917) made a number of important recommendations, which led to the issue of a series of Minutes laying down a new procedure.

(1) The Committee accepted the principle that, with certain exceptions, the administration of Stores, the movement of material, and the Stores accounting should be concentrated in a new Central Stores branch.

This branch was instituted on 6 April by General Procedure Minute 95. It formed part of the department of Munitions Supply. Its jurisdiction extended to all Ministry Stores, except those controlled by the Explosives and Trench Warfare departments, and included Inspection Bonds, though, so far as these were concerned, the branch reported to the Director-General of Inspection.

(2) With regard to the movement of goods, the Committee called attention to the difficulties that had arisen owing to the large number of departments which sent out Issue Warrants and the lack of centralised information as to the movement of raw materials and components. The existing forms were satisfactory, but they had been varied by the several departments, with the result that the information they furnished for the purposes of Contracts and Accounts was insufficient. In some cases the number of the contract was not shown, and there was no means of identifying the use for which the material was intended. In other cases the terms of issue were not stated.

The remedy adopted was to make the Central Stores branch responsible, not only for the storage, but also for the receipt and issue, of all goods requiring to be stored, whether from home production or from overseas. It was to supply all forms connected with Stores accounting—Issue Warrants, Advice Notes, Transit Notes, etc.

The heads of the information to be contained in all Issue Warrants were laid down, with the injunction that uniformity was to be preserved so far as possible. In place of the 60 different series then in use, a single serial numeration was to be introduced. The departments and branches for which goods were to be issued from Store were directed to nominate one of their officers to be responsible for seeing that the Issue Warrants were properly distributed and contained complete information, and the Central Stores branch was authorised to refuse Issue Warrants which did not comply with the rules.

Where material was required and no contract existed specifying terms of issue, Sale Notes were to be drawn up by the Supply department. All sales were to be at rates and on principles approved for a period by the Supply, Contracts and Finance departments.¹

Directions were issued later (16 May, 1917) that all Issue Warrants made out in the Ministry for the supply of materials to contractors,

¹ General Procedure Minute 88, 28 March, 1917.

factories, etc. (except for Explosives and Trench Warfare stores) were to be countersigned and registered by the Central Stores branch. For this purpose a Registry of Issue Warrants was instituted, with branches located in the various principal buildings.¹

(3) The Stores Accounting connected with all the Stores under its control passed to the new branch. Under the arrangement already described, the functions of the former Chief Stores Accountant's department (M.F.5) had been cut down to the audit and supervision of Supply departments' records. The new Central Stores branch now became responsible for supplying the Finance departments with the information required to enable them to pay bills and prepare invoices. Control of all Stores Accounting procedure (other than Factory Accounting) was vested jointly in the branch and the Finance department.

This part of the new system did not yield the good results that were anticipated. In March, 1918, the Comptroller and Auditor-General, in his report on the Ministry accounts for 1916-17, commented as follows on the system now introduced :—

“ A recent test examination by my Department of the Central Store ledgers kept at headquarters showed . . . that the new system of Store accounting instituted as from 1 January, 1917,² had not realised expectations.

“ Much dependence had been placed on a control to be exercised through the periodical comparison and reconciliation of these ledgers with returns furnished by the dépôts, but in many cases such reconciliation had not been effected, and important errors remained uncorrected. In the result the central ledgers do not satisfactorily reflect the movement of stock nor show the stock in hand.

“ Recent stock-taking results and a local test examination at an important dépôt showed that accounting at the dépôts is also apparently unsatisfactory.

“ It is understood that it has recently been decided that the central ledgers should be discontinued, and reliance placed on the dépôt ledgers, which will be subjected to a departmental local examination.” (*Par. 72.*)

(4) The Committee's enquiries had brought to light serious defects in the procedure governing the receipt and forwarding of munitions and materials at ports. This branch of the business had hitherto been handled by Mr. Kissane's department. The sources of the trouble lay on both sides of the Atlantic. In the United States there was difficulty in checking materials through rail and port to ship. In Canada the Committee found that the Imperial Munitions Board's system of checking supplies from ports showed a looseness which the Board was unwilling to admit. Further, the bills of lading did not always accurately represent the goods on ship, sometimes in consequence of

¹ General Memorandum 5, 16 May, 1917.

² The administration of the new system did not begin before June, 1917, but the balances were struck as at 31 December, 1916. (See D.F.3/P.A.C./46.)

"shut-outs," sometimes because the ships' manifests were intentionally falsified with a view to misleading the enemy. In the United Kingdom the Ministry was not sufficiently represented at the ports.

These representations led to the formation of a Port Forwarding branch under the Director-General of American and Transport Department, which worked in co-ordination with the Central Stores branch.¹

The principle of combining in one department the administration of storage, the movement of materials, and Stores accounting, though adopted by the Advisory Committee and carried out in the creation of the Central Stores branch, excited some protest from officials who looked at the problem from the side of Supply rather than Accounts. The principle, in fact, ran counter to a movement towards decentralisation which, originating in the Supply departments, was beginning about this time to make itself strongly felt. Behind this movement there lay a real conflict of interest, or perhaps rather a divergence of ideals, as between Supply and Finance. The object of Finance was to secure the greatest uniformity in forms and procedure, and to obtain from as few sources as possible the basic information for accounting and bill-paying purposes. The interest of Supply lay in another direction. Each section responsible for the production of a given class of goods naturally desired to keep in its own hands the movement of the materials used by its contractors, and, so far as possible, the control of the corresponding storage. The Explosives and Trench Warfare departments had largely realised this ideal of a self-contained system. Other Supply departments had in the early period followed the same course so far as they could,² while the Chief Stores Accountant, starting in the race under a severe handicap, had been struggling to overtake them. In the last months of 1916 the worst obstacles were being surmounted, and his goal appeared to be in sight. Then his central record was abandoned, and his department reduced to a mere auditing section. Immediately afterwards, Stores accounting was once more concentrated in the Central Stores branch. To this part of the scheme the Supply departments offered no objection. What roused their protests was the simultaneous centralisation of Stores administration and control of movement.

The protest was most strongly expressed by the Gun Ammunition Filling department, of which Mr. Kissane's Stores department had formed a part. It will be remembered that, in the above quoted memorandum by Mr. Guy, Mr. Kissane, and Major Cripps, a distinction had been drawn between the movement of raw materials and of completed munitions on the one hand, and the circulation of semi-manufactured components on the other. Of the latter the Gun Ammunition Filling department wished to retain control. Its head, Colonel Milman (C.G.A.F.), argued that the storage of empty components was as essen-

¹ General Memorandum 1, 16 April, 1917.

² Thus in February, 1917, the Machine Tool department contained a Progress, Transport, and Accountancy section; D.D.G.(D) had a section for Establishment and Records, Orders for Allies, and Storage; the Director of Salvage controlled certain Stores; the Mechanical Warfare department had a Stores section, and so on.

tial a factor in their distribution as the distribution was of the whole filling programme for which he was responsible. Some of the storage accommodation was actually within the Filling Factories' premises; it would naturally all have been there, had not traffic conditions and the irregularity of arrivals from overseas rendered storage necessary outside. He considered that the only business-like arrangement was that which had been in force since December, 1915, under which the Filling department held all components from the moment of passing inspection, and directed their circulation until the final delivery of the filled ammunition.¹

At the request of the Organisation Commission,² Mr. Kissane drew up a statement purporting to express the Commission's views. Since this body was dissolved before it produced a final report, the document must be read rather as an expression of opinion from the point of view of Supply, in contrast with that of the Finance department.

The statement said that the ideal system would be that each Production and Supply department should manage its own Stores, at any rate so far as the movement of materials was concerned. Stores accounting, on the other hand, was probably better centralised.

"The Commission feel that no question of centralisation of Stores management and organisation would have arisen if the Finance department had been sufficiently organised to carry out its own functions in the first place, and to demand from the various Stores departments the minimum of its requirements for financial purposes. It seems to the Commission that the abolition of the ideal Stores organisation to which the Ministry has in fact approached, simply because of failure on the part of the Finance department, is not the right remedy. The proper way would appear to be to form a strong Central Store Accounting department, which shall be fully cognisant of the requirements of the Filling department, and sufficiently strong to insist upon their being carried out by the various Production and Supply departments.

"The Commission found, in fact, that the departments recently established in the Ministry, such as Mechanical Transport and Mechanical Warfare, have their own Stores organisation, and in both cases their own finance arrangements affiliated, it is understood, to the central Finance department, which the Commission considers is a still further extension of the right principle.

"With regard to the Receiving and Forwarding of consignments from overseas, the Commission consider that this

¹ Memorandum by C.G.A.F. for the Organisation Commission. First Interim Report on D.G.O.S. department, Appendix E, 15 May, 1917.

² This Commission was appointed by Dr. Addison in March, 1917, to review the organisation of the Ministry. As Colonel Milman was one of the three members (the other two being Mr. Alexander Duckham and Mr. Allan Smith), the Supply standpoint was fully represented.

should be regarded as a separate operating department, acting on behalf of the various Supply departments. The Commission consider, therefore, that the establishment of a Central Receiving and Forwarding branch, if allied with independent Stores organisation, is a correct step. Such a branch would be responsible directly to the Central Stores Accounting department for the disposal of the goods and would receive its instructions direct from its own headquarters organisation."

Colonel Milman's memorandum endorsed these views. He wrote: "Stores accounting is quite a different matter" (from Stores administration and movement of materials). "On reading the correspondence, etc., about the new Central Stores branch, I feel that the Minister's decision was founded on the failure of the organisation for Stores accounting, and no case has been made out for the centralisation of Stores administration."

In their First Interim Report (23 May, 1917), the Commission recorded Colonel Milman's views, and added:—

"The Commission recognises that the principle of centralising the Stores accounting in one department is sound; but they observe that certain departments of the Ministry are exempted from the control of the new Central Stores branch, not only as regards administration and custody of components, but as regards Stores accounting. After hearing the arguments against centralisation (except as regards Stores accounting) adduced by C.G.A.F., the Commission is satisfied that this departure from the original scheme will not give satisfactory results."

The movement towards decentralisation gathered force from this time onwards. Its further history will be recorded in Chapter V.

IV. Reorganisation of Finance.

The Central Stores branch came into being about the end of April, 1917. Meanwhile, in the course of their inquiries in February and March, which led to the institution of the branch, the Advisory Committee found that there had been great lack of co-ordination between the departments, which had given rise to very serious defects in the accounts. They reported the following instances. Materials had only been partially charged out to contractors; no charges for components supplied to contractors had been made since about July, 1915¹; no issues from Stores had been charged out (except to National Factories) since about October, 1916.²

¹ In a Minute to the Minister, dated 24 March, 1917, A. F. S. wrote that he was informed that this statement could only refer to American consignments. The position had been realised in the middle of 1916, and it had been decided to concentrate attention on raw materials. Taking these and American components together, arrears had already been much reduced, over £22,000,000 having been billed since January, 1917, an amount considerably in excess of current deliveries.

² A. F. S. pointed out that this statement required modification. Invoicing of these components had been taken in hand in July, 1916, and was now complete up to 30 September. For issues since September the complete record was now on the books, and invoicing was proceeding. A.C./77.

These representations led the Minister to put to the Committee, on 27 February, a further reference in the following terms :—

“ To advise upon any alterations which may be necessary in the organisation of the Finance department in order to ensure a complete co-operation between the proposed Central Stores department and the Finance department, and a proper charging up of outstanding and current accounts.”¹

Representatives of the Finance department who gave evidence before the Committee on 1 March complained that there were a large number of Stores transactions of which their department was not cognisant. It was reported that there were £1,000,000 worth of gauges that had never been billed. No bills had ever been sent out for £3,750,000 worth of H.E. steel purchased from contractors in America, though its source and destination were known.

The information with regard to contracts was incomplete and slow in reaching the Finance department, which sometimes received bills before any contract account had been opened. The weekly list of contracts omitted many of the terms, and the contract file, which passed from one department to another, might not contain all the letters modifying the terms.

Mr. Guy urged the absolute necessity of instituting the system of double entry. Troubles arose, too, from the accounts being kept on the basis of contracts and not of personal accounts. Thus, an order might be given for 100 tons of copper to be issued. The Supply department might have arranged for it to be shared between two or three different contracts. Supposing that only 60 tons could be supplied from the Stores, how were they to be allocated in the accounts ? The Issue Warrants did not coincide with the actual transactions. He proposed that on the Advice Note the consignee should show to what contract he had allotted his material.

Another loophole in the earlier system had been offered by the arrangement under which one contractor had been able at first to secure material from another. There had, for example, been a contract under which a certain Firm A had secured some brass rod from Firm B for £25 a ton, whereas A's contract was based on a price of £130. The £25 represented the services of B in rolling and milling, and excluded the value of the metal. Firm A had received the material for the service charge, but had been paid the full £130 per ton. The only way to prevent such errors was to charge all material to the individual contractor, and systematically check the disposal of it.

Mr. Guy further stated on 5 March that he had just learned of the existence of a Tungsten Store at Sheffield which had been steadily receiving material. No knowledge of any issues had ever reached the Finance department. The Store had never sent out Issue Warrants or Advice Notes, or billed any consignee.

¹ A.C. Ref. No. 29. A.C./77.

A report based on enquiries in the two important Finance branches M.F.1 and M.F. Materials was prepared for the Committee by Mr. Dannreuther, Mr. O. T. Barrow, and Mr. Guy.¹ It brought into a clear light the defects of the existing system of Stores finance, especially from the point of view of the embarrassments they put in the way of the Accounts department.

The memorandum began by stating that the unsatisfactory condition of the accounts was not attributable to the officials in charge, who from time to time had vigorously appealed for remedy, but financial requirements had apparently been subordinated to other and possibly larger considerations. The fault lay in the conditions under which the accounts were prepared and the lack of co-ordination between the operating and the Finance departments.

The Ministry's accounts aimed at four conclusions : (1) a complete account of each Ministry contract, both for cash and material ; (2) Store accounts in quantities for all stores held on behalf of the Ministry ; (3) Cost accounts for all factories operated by the Ministry ; (4) a statement of cash payments and receipts by Vote Heads.

The following description was given of the nature of the accounting system and the consequent defects in operation.

(a) The accounts were kept by single entry, upon a system of receipts and payments (as distinguished from income and expenditure). This system, which had met all needs so long as the Ministry had, like the War Office, been almost entirely a purchasing concern, had broken down when the business was extended to the manufacture, sale, and consignment of goods on a large scale.

The system, it was presumed, was accepted as inevitable ; but the writers indicated remedies by which the accounts might at least be made effective for securing recovery in cash for materials sold, and for establishing economy in the use of materials on free issue.²

(b) The whole fiscal and operating systems were based, not on open accounts with manufacturers, but on contracts. Any transaction which could not be traced to a contract, or where traced was not covered by the contract, was not susceptible of record.

Although the contract was thus the base of the whole system, many contracts were being made or modified without advice to the Finance department ; there was nowhere available a complete file for each contract and the correspondence relating to it ; sale prices were fixed without authority from the Contracts department ; many transactions were made without contracts ; contracts were made without the purchase price being fixed ; the terms did not always cover all transactions made under the contract, particularly the supply of materials by the Ministry.

It was also complained that large new enterprises were undertaken without notice to the Finance department, where bills would accumulate before any authority or information was received.

¹ A.C. 77. Attached as Appendix A to the Committee's Report (9 March, 1917).

² This section of the report will be considered in more detail later. See p. 80.

(c) All goods were moved on instructions from the operating department, made out on an Issue Warrant. No movement was recorded in the accounts at the time of the movement, but only when a cash transaction resulted. The evidence of the movement was the Advice Note. The Accounts department thus depended entirely on receiving copies of all Issue Warrants and Advice Notes, bearing all the information required, before an entry could be made.

The working of the system here was very defective.¹ For lack of a central co-ordinating authority, large numbers of Issue Warrants never reached the Accounts department. A very large percentage of Warrants did not bear the consignee's contract number. The prices noted on them, as chargeable to the consignee for sales, were not supported by proper authority. The stage of manufacture (*e.g.*, whether forgings were machined or not) was often not stated. Copper bands were delivered to contractors whose contracts contained no provision for this, and materials were supplied to manufacturers with whom no contract had been made, so that the consignor could not be paid. For some materials the evidence of delivery was retained by the operating authorities because the invoices did not show the contract number. Some 250,000 tons of H.E. steel, paid for through Messrs. Morgan and delivered to contractors months ago, had never been billed for lack of this information.

The following cases illustrated the results of these defects. Some £3,000,000 had been advanced in money to the Railway Companies for munitions work, and probably an equivalent quantity in material; but the Accounts department had only been able to secure bills, in a form mentioning the consignees even by name, for some £600,000. There was little doubt that some millions of pounds' worth of commodities had been paid for through Messrs. Morgan in America, for which no disposition could be made on the information available. It did not follow that there would be any financial loss.

Inability to pay bills, for lack of evidence of delivery to the consignee, entailed making heavy advances under the threat that production would stop. Advances outstanding at the present time amounted to £50,000,000.

In conclusion, the writers made a number of recommendations. They asked for a clear definition of the conclusions which the accounts were expected to establish, and for adequate staff accommodation. They supported the appointment of a Central Stores authority, and recommended that there should be another authority to co-ordinate the operating and Finance departments. The Contracts' department should provide adequate support. With regard to their own work, they advocated the installation of a double entry system and the creation of special Board to direct the agreement of accounts with the books, to clear up the accumulations of the past, to make adjust-

¹ It must be remembered that this was written before the establishment of the Central Stores branch in April.

ments, fix prices, and amalgamate contracts which had become inextricably confused.¹

The Report of the Advisory Committee, presented on 9 March, expressed the opinion that "the position has been greatly aggravated by the lack of co-ordination between the departments concerned (Finance, Contracts, Supply, and Stores)," and that "the conditions of affairs now existing should have been foreseen and provided against at an earlier stage."

The lack of full information in the Contracts department was very serious. "Whatever latitude may have existed in the past owing to the necessity for obtaining quickly the supplies of munitions required, and however desirable it may have been to enlist the support of the administrative heads of the Supply sections to obtain supplies, there is now no reason why all contracts entered into on behalf of the Ministry should not become the direct responsibility of the Contracts department."² The final settlement and the signing of all contracts should only be done by, or on behalf of, the Contracts department.

(1) To this end they proposed that the Contracts department should be decentralised. A representative authorised to act on behalf of the Director-General of Contracts should be attached to each of the principal Supply departments. The head of a new Miscellaneous branch should be similarly authorised to deal with the contracts of the minor Supply departments. The Contracts representative should be kept informed of negotiations, so as to enable him to enter into the contracts without delay. He should also notify the Director-General of Contracts of all contracts made, and of any modifications, and furnish the Finance department with copies of all contracts and modifications.

(2) In the second place, the accounts were to be reconstituted by changing the book-keeping system of the Finance department and its branches throughout the Ministry so as to conform with the best commercial practice as from 31 March, 1917.

¹ With reference to this memorandum, Mr. Mann wrote to the Minister on 26 March, 1917: "In order that the Committee might realise the urgency of my recommendations" (for the centralisation of Stores arrangements), "I instructed my deputies to furnish to them the fullest possible statement of the position, not hesitating to disclose any feature of that position, however unsatisfactory or disquieting, and irrespective of any conclusions that might be drawn by the Committee as to the responsibility of the Finance or other departments for its cause. These instructions, I believe, were faithfully followed, with the result that the Advisory Committee's report may have caused you undue anxiety."

"Concerning the present state of affairs, I am satisfied that since January great and successful efforts have been made to improve matters, particularly with regard to invoicing against contractors, and I have good reason to expect that the new arrangements will enable the arrears to be overtaken and prevent the recurrence of the difficulties." A.C./77.

² With reference to this paragraph, Mr. Mann wrote to the Minister on 26 March:—"The lack of information from Supply and Contracts departments is fully dealt with in your statement" (embodying the Committee's findings). "It has been another main cause of failure to invoice promptly; but, looking back upon the past, it is obvious that more emphatic protests should have been made to secure the necessary remedies." A.C./77.

(3) At this date the Committee drew a line between the past and the future. With regard to the past, they recommended that a special staff of the Finance department, headed by a chartered accountant of high standing, should be created to clear up the position of the Ministry's books down to 31 March, 1917.

(4) They further recommended that a small Committee of three or four members should be appointed, to advise the Assistant Financial Secretary on the financial arrangements proposed to be made on behalf of the Ministry. There was already a Finance Committee of three members, but two of these were on the Ministry staff.¹ It was proposed that the members should be men of high financial and commercial knowledge, chosen from outside the staff.

(5) The remaining recommendations of the Committee referred to accommodation and staff. They considered that the present unsuitable accommodation did not make for efficiency, and that the Finance department should be placed as near as possible to the Ministry headquarters. The Supply departments were to be requested to offer, for transfer to Finance and Contracts, any accountants on their staff who could be spared.

This report originated all the important reforms which will be described in this chapter. They fall under three heads: the appointment of the Financial Advisory Committee; the definition of the functions of Supply, Contracts, and Finance; and the reconstitution of the Ministry accounts.

V. The Financial Advisory Committee.

The formation of an advisory committee of financial experts had already been proposed to the Minister as early as 18 January, 1917, by the Chairman of the Advisory Committee, who wrote:—

“The financial responsibilities of the Ministry are increasing daily. The weekly expenditure and the obligations of the Ministry exceed many times those of any commercial concern in the world. The difficulties are increased (a) by many of the financial negotiations being expediency measures, which have to be carried out under circumstances contrary to ordinary business practice, (b) by the possibility of the abrupt termination of the War and the forced stoppage of contracts.

“Our Finance department is composed of very able men, but mostly accountants. I feel we should have the assistance on these big financial schemes of men who are used to big contract work and world-wide finance.”

The Committee now appointed took the place of the Finance Committee on Economy, appointed by the Cabinet in 1915 to assist Mr. Lever. This body, owing to the protracted illness of Mr. Charles Rothschild, had ceased to meet in the last months of 1916. Like that Committee, as at first constituted, the new body was mainly

¹ The reference is to the Finance Committee on Economy.

composed of men of large financial experience who were not officials of the Ministry. In other respects its position and functions were different. The chairman was not the Assistant Financial Secretary, but, like the majority of the other members, unofficial. The Committee was to advise the Minister directly on large questions of financial policy referred to it by him.

The question of its scope and functions was discussed by the Minister's Advisory Committee.¹ On 19 March this Committee recommended that the new body should consist of not more than five members, together with Mr. John Mann (A.F.S.) and Mr. Owen Hugh Smith (Controlled Establishments division). Besides advising the Minister on large financial questions, the Committee would be available to advise the Assistant Financial Secretary on current financial problems, the Director of the Controlled Establishments division on arrangements with firms, and the head of the Internal Audit section² on the settlement of differences between the Ministry and its creditors or debtors.

It was considered that the chairman should be drawn from outside the Ministry, but that one member should be conversant with the organisation of the Department. The Report concluded by submitting the following names :—

Sir Clarendon Hyde (Vice-President of Messrs. S. Pearson & Son, Ltd.), *Chairman*.

Mr. D. H. Allan (of Messrs. Harris, Allan & Co., Chartered Accountants).

Mr. Francis Redfern, junior (of Messrs. Redfern, Hunt & Co., Solicitors).

Mr. H. H. Hambling (General Manager of the London and South Western Bank, Ltd.).

Sir Alexander Roger.

Mr. John Mann (*ex officio*).

Mr. Owen Hugh Smith (*ex officio*).

The Minister approved the Report, and the appointment of the above-named gentlemen, with the addition of the Hon. N. Charles Rothschild, was announced on 6 April.³

The Financial Advisory Committee remained in being throughout 1917 and 1918, and produced a number of valuable reports. In October, 1918, as no question had been referred to them for some months past, they asked whether they could be disbanded. As it was thought, however, that their advice might be needed in connection with industrial demobilisation, the Minister requested them in November to remain for the present. On 15 January, 1919, it was decided that the Committee should be dissolved.

¹ A.C. Ref. 30. A.C./85.

² For this section, see below, p. 70.

³ General Office Notice, 117.

VI. The Relations of Supply, Contracts, and Finance.

The agitation for reform at the beginning of 1917 had its origin in the Finance department. As a consequence the complaints that were most loudly voiced before the Advisory Committee were the complaints of Accounts against Contracts. The Contracts department, standing between Supply and Accounts, had responsibilities towards both. In defending itself against the charges made against it by Accounts, Contracts naturally brought forward its difficulties in relation to Supply. It has already been pointed out¹ that the position assigned at the outset to the Contracts department was weak ; it had been subordinated to the Director-General of Supply, and its authority had been further diminished by the peculiar powers conferred on Mr. Lever, which removed from the Director of Contracts the responsibility, not only for all important negotiations of an exceptional character, but even for the prices fixed. If Mr. Lever had been free to devote his whole time to this part of his duties, the effect would merely have been to make him practically Director of Contracts, and the intention of the arrangement, which was to strengthen the Contracts interest, would have been realised. The actual result was the reverse. Mr. Lever's energies were at first directed chiefly to the inauguration of costing systems and the campaign for the reduction of contract prices which those systems rendered possible. It is certain that the gain by the saving of public funds far outweighed any loss entailed by the inevitable consequence that Mr. Lever could not give his full powers to the superintendence of Accounts. But meanwhile the Contracts department, shorn of its natural status and responsibilities, was unable to assert itself against the dominant interests of Supply.

The conclusion that emerged from the Advisory Committee's report was that "the position had been greatly aggravated by the lack of co-ordination between the departments concerned (Finance, Contracts, Supply, and Stores)." This "lack of co-ordination" meant primarily that, whether the fault lay with Contracts or with Supply, or was traceable to an insufficiently definite or wrongly drawn delimitation of their functions, the result was that the basic information required by Accounts was unduly delayed in its passage through Contracts from Supply.

The reform of the Issue Warrant system and the centralisation of Stores organisation were designed to regulate and expedite the forwarding of evidential documents. On the side of co-ordination, the reforms proposed were naturally centred on Contracts and were chiefly concerned with the relations of Contracts to Supply. The inference may be drawn that this was the point where the earlier system had most seriously broken down. But, in the light of the foregoing considerations, it must not be concluded that the fault lay chiefly with Contracts.

¹ See above, p. 25.

The recommendations of the Advisory Committee led to the issue on 4 April of General Procedure Minute No. 92 on the co-ordination of the Supply, Contracts, and Finance departments.

This Minute provided, in the first place, for closer and more regular inter-departmental contact :—

“(ii) Arrangements whereby branches of the Contracts department are allocated to the different Supply departments, where not completely established at present, to be instituted as soon as possible. Each Supply department to co-operate with the representative of the Contracts department in all negotiations with contractors, and afford any information that may be required. The representative of the Contracts department to adjust the contract without delay when the negotiations are completed.

“(iv) The Contracts department to maintain complete files of contracts with all information necessary for the work of the Finance department.

“(v) Immediately a contract is placed, the original contract document and a copy of the acceptance to be filed in the Contracts department.

“(viii) The Contracts and the Supply departments to furnish promptly to the Finance department, on request, all information they may require in connection with the completion or adjustment of bills and accounts.”¹

With regard to the decentralisation of Contracts, as enjoined in (ii), Mr. Hanson, Director-General of Munitions Contracts, had pointed out that his department was already highly decentralised. Every Supply department had a corresponding section of Contracts, which worked with it and closed contracts without consulting the Director-General of Contracts except in special circumstances. Local decentralisation also existed to a considerable extent. The Contracts sections for Gun Ammunition, Trench Warfare, Machine Tools, Railway Materials, Tanks, and Aeronautical supplies were under the same roofs as the Supply departments. Decentralisation should not be carried so far as to sacrifice touch with the Director-General of Contracts and the Finance department, or amount to a *morcellement*. Not enough competent heads could be found.²

On 28 March, a reorganisation of the Contracts department was announced.³ The general structure of the department was not changed, but certain sections were subdivided and others were added so as to bring them into closer correspondence with the Supply sections.

¹ Contracts Branch Memo. No. 102 (P.M./Gen./808), 23 May, 1917, detailed arrangements for helping Finance to keep records without the unnecessary removal of files from Contracts. No. 107 (P.M./Gen./811), 8 June, 1917, gave a form (M.C.8) for notifying alterations of contracts to contractors and to M.F.I.

² Minute by Mr. Hanson, 22 March, 1917. Estab. Cent. 5/67.

³ General Office Notice, No. 114.

Two further clauses of General Procedure Minute 92 were designed to protect the Contracts department from encroachment on the side of Supply:—

“(vi) No modification of a contract to be made except through the Contracts department and, immediately a modification is made, a copy of the letter or other document making the modification to be filed in the contract file.

“(vii) In cases in which it is necessary to make issues before a contract has been entered into, the special terms of issue must be notified on the Issue Warrant, and the Contracts department advised of the necessity of a contract being made, and of the effect of the special terms of issue on the main contract.”

The remaining clauses were the most important, inasmuch as they defined the responsibility of the Contracts department for the terms of contracts, and the class of contracts for which it was responsible.

In March, Mr. Hanson had received from the Minister a minute proposing that the following rule should be laid down:—

“All contracts must be made and recorded by the Contracts department, which is to be responsible for their terms.”

Mr. Hanson¹ pointed out that this would mean the abolition of certain exceptional arrangements which now existed. For instance, the Director of Factory Construction, Mr. John Hunter, at present signed contracts for factory construction. Contracts were also signed by the Gun Ammunition Filling department for certain stores, and by Mechanical Warfare Supply for Tanks.

In the second place, Mr. Hanson raised the crucial question, what was meant by “being responsible for the terms” of contracts. Was Contracts to be responsible for seeing that the terms negotiated by Supply were clearly stated and recorded? Or was it to be satisfied that the bargain was a good one?

There were three possible systems:—

(1) The head of a Supply department might make his own contracts. This principle gave the executive officer freedom and responsibility; but it was likely to lead to extravagance in Government business.

(2) Supply might close bargains, while Contracts merely put them in form and kept records, the contracts being made in the name of the Director of Contracts. Mr. Hanson considered that this was the worst system, because it divorced power from responsibility, which was fastened upon the officer in whose name the contract stood.

(3) Mr. Hanson preferred that there should be a general Contracts department responsible for the terms, in the sense of being satisfied with the bargain before it was closed.

All three systems were now in operation in the Ministry.

¹ Estab. Cent. 5/67.

Contracts stood between Supply and Accounts. It had duties to both, and these duties conflicted. Supply wanted speed in fixing bargains for the sake of production. Accounts wanted a clear record for purposes of payment. Contracts at present regarded its duty to Supply as paramount, and the records had to be sacrificed. Thus, all contracts for gun ammunition were now closed by a letter stating the general terms and giving authority to proceed. The formal contract was drafted later, and the drafting was often delayed because the file was needed for more urgent matters. The greatest delays were due to deliberate policy. For instance, on the big gun equipments millions were spent before the prices were fixed or contracts drawn.

With reference to this Minute, Mr. Mann wrote to the Minister on 2 April, suggesting that the exceptions mentioned by Mr. Hanson (contracts placed by the Director of Factory Construction, G.A.F. (B), and Mechanical Warfare) should be abolished, and that Contracts should be directly responsible for all contracts, as the Minister's proposed rule enjoined. Of the three possible systems of organisation, Mr. Mann agreed that the only right one was that Contracts should co-operate with Supply, but be itself responsible for the terms. This method was now in use, subject to the financial sanctions laid down by the Minister on 29 October, 1915.¹ As Mr. Hanson urged, a separate Contracts department was useless, unless it were responsible for the terms of a bargain being good.

The Minister's decision on these points concurred with Mr. Mann's opinion that the responsibility of Contracts must extend to the content, and not merely the form, of the terms. On the other hand, it did not widen the scope of Contracts so as to include construction contracts, but left it limited to contracts for purchase and sale. In an interview with Mr. Mann and Mr. Hanson at the beginning of April, the Minister laid down two general principles:—

“ 1. All purchases and sales by the Ministry should be effected through the Contracts department, and the Contracts department should be satisfied with the terms of the bargains before it agrees to them.

“ 2. The Finance department has a general responsibility for the terms of all important contracts, and its sanction must therefore be obtained before they are settled.”²

Mr. Hanson circulated this decision to each section of his department, requesting a report on its present practice, and how far it conformed to these principles. The replies throw light upon the workings of the earlier system.

The relations between the Contracts sections and the various Supply departments varied considerably. The diversities were, of course, largely due to the different conditions governing the purchase of the goods; but in some instances it appeared that the inter-departmental relations had never been placed on a satisfactory basis. Thus,

¹ These sanctions were those mentioned in clause (iii) of General Procedure Minute 92, quoted below.

² P.M./General/767.

the Director of P.M. 1A wrote :—" The procedure followed by the various Supply sections (dealing with P.M. 1A) differs according to the ideas entertained as to the exact relations which should exist between the Supply and the Contracts departments, some Supply sections apparently holding that it is their business to negotiate terms, and that the functions of the Contracts department are limited to embodying those terms in a contract, while others recognise in a greater or less degree the claim of the Contracts department to be regarded as the arbiter of prices."

As recently as January, 1917, the head of P.M. 1 E had complained that his section, dealing with contracts for Railway Materials, had had practically no control over prices, but was in the position of putting into legal form arrangements which had been negotiated by the Railway Materials branch, and of which the section had " no knowledge beyond the scanty evidence of minutes." By April, however, this state of things had been largely remedied.

Several other sections stated that the cases in which Supply departments concluded bargains before consulting them had now been reduced to a small number. P.M. 2 D reported that " the Supply departments have nothing whatever to do with the negotiation of contracts " for shell components. From the receipt of the requisition to the completion of the contracts all details were carried out by the Contracts section.

In the large majority of cases the Contracts sections regarded their relations with Supply departments as satisfactory, and as affording them a sufficient control over the terms of contract.

The clauses of General Procedure Minute No. 92 referring to these matters ran as follows :—

" (i) The Contracts department are responsible for the terms of all arrangements for buying or selling on behalf of the Ministry whether embodied in correspondence, in Sales Notes, or in formal contracts of purchase or sale, and for any modifications of such arrangements.

" (iii) Each Supply department and the Contracts department will continue to co-operate with the Finance department in all important contracts or undertakings—

- (a) involving an expenditure of £40,000 and upwards ;
- (b) involving capital expenditure or loans ;
- (c) made on a nett cost basis.

" All such contracts and undertakings must be referred for final sanction to the Assistant Financial Secretary, or such Officers as he may designate for the purpose, before any definite understanding is arrived at with the contractors."¹

The issue of this Minute, though in several ways it improved the position of the Contracts department by defining its duties and rights

¹ A reference to General Office Notice No. 11 (see above, p. 24) was added.

in relation to Supply, did not dispose of the fundamental controversy between the rival claims. Immediately after the change of Ministers in July the whole question was raised again, with results which will be traced in the next chapter.

VII. The Internal Audit Section.

On 15 March, 1917, a special meeting of the Ministry Finance Board was called to discuss the institution of an Internal Audit section in accordance with the Advisory Committee's recommendation. The section was to help in and continue the work of Mr. Guy and Mr. G. F. Garnsey, who had already been appointed a Reconciliation Committee for the purpose of reconciling the Ministry's records with contractors' books for the period up to 31 March, 1917. The Assistant Financial Secretary explained that the need had been clearly brought to his mind by the recent discussion with the Advisory Committee on the delay in charging contractors with material and components issued to them. Future criticism could be rebutted only by putting the house in order. He proposed the formation of a special staff, somewhat on the lines of the small nucleus created by Mr. Lever, to check the work of the Accounts branches, especially M.F.1 and M.F. Materials. The objection was raised that no valuable results would be obtained unless there were a very large staff, who would practically be doing over again the work of the Accounts sections. The proposed reconciliation of contractors' accounts to 31 March, 1917, would itself be the most complete audit possible. Mr. Guy was asked to submit a memorandum on the relation between Internal Audit and this reconciliation. A summary of this memorandum will be useful, as it clearly describes the peculiar function of the Accounts branches, as well as indicating the progress already made towards reorganisation.

Mr. Guy pointed out that much of the work of the Accounts branches was more nearly an audit than was that of the accounts department in a commercial concern. Accounts originated hardly anything beyond invoicing sales to outside contractors and a few interest calculations. Contracts made prices for purchases and sales; Supply originated the movement of goods; the Stores department (or the contractor) effected and recorded the movement. Accounts was limited to authorising the payment of bills. It had no representation with, or jurisdiction over, contractors, Supply, or the Stores department, much less the Paymaster-General. All bills were supported by evidence prepared by Ministry officials, and might be paid by the Paymaster on mere examination that the required evidence did in fact support them. Thus the function of Accounts was already to a large extent one of audit and check.

(a) *Purchases.* With respect to purchases, Accounts had three duties:—(1) The first was the audit of bills, involving a check of the computations, examination of the supporting evidence of inspection and delivery, a comparison of the price and quantity with the contract terms, and the avoidance of duplication. There could be no audit of this work which would not be a duplication of some or all of it. (2) The

maintenance of personal accounts with all contractors (transactions being segregated by contracts) was original work. The accounts served to avoid duplicate payments and to keep within the quantity limits of the contract. No duplicate bill could pass without the presentation of duplicate evidence from outside the department ; or a duplicate acknowledgment of Store charge if delivery were to a Government Store, or a duplicate charge if the consignee were a contractor ; or the eventual disclosure of excess deliveries on the contract. In this field, Accounts were already auditing outside records. The weak point was the danger of excess deliveries. Mr. Guy planned that the Internal Audit Committee should see that no contract was exceeded without the sanction of the Director of Contracts. (3) The third duty was to see that all purchases were brought to the charge of a Government Store or of a consignee contractor.

(b) *Sales.* The position with regard to sales was different. Here Accounts originated the invoice, as well as the ledger account charged. Past defects had been chiefly due to shortage of staff and floor-space, and to deficiencies in the basic information supplied. Remedies were now being applied. Other departments were being pressed to improve the basic information. Statements of all issues from Bonds and Stores were being compared with charges made to Government Factories and contractors. An extensive examination, not yet complete, was being made of charges against consignee contractors consequent upon the payment of bills by the Ministry. The Stores Audit section had been inaugurated. The Director-General of Stores had been appointed to regularise the operation and records of Stores and Bonds. The reconciliation of contractors' accounts had been undertaken. A beginning had been made of the instalment of a system of double entry. Factory auditors and Filling Contractor auditors had been largely supplemented in the last few months. A central Clearing House for Railway freight bills was being installed.

The prices of goods supplied not under contract (especially to Allies) had been originated by Accounts. The new Vocabulary section should make an exhaustive check.

Much had thus already been done. Mr. Guy, however, made the following recommendations :—

(1) All those processes which check records and transactions originated in Accounts, in particular the invoicing of sales, should be put under an officer equal in rank to the accountant officer immediately in charge of the accounts. His duty would be to see that all issues were billed. This was the danger point.

(2) The reconciliation of contractors' accounts should be pressed forward.

(3) The Advisory Committee should be informed that there was not yet satisfactory evidence that material issued for return in kind was properly recorded or checked.

(4) The clearance of the many suspense accounts should be pressed on. This work depended on the provision of sufficient staff and floor space and on the fixing of provisional prices.

(5) The Internal Audit Committee should verify, by a test audit, that Store charge had been secured for bills paid. There was a danger that evidence of the receipt of goods might be attached to bills without a charge being entered in the book of account.

The above memorandum was read at a second meeting of the Finance Board on 20 March. It was agreed that a Deputy Director of Munitions Accounts should be charged with the two duties of (1) inspecting the current work of the Accounts branches, and (2) the reconciliation of past accounts with contractors.

It was announced accordingly, on 6 April, 1917, that Mr. G. F. Garnsey had been put in charge of an Internal Audit section of the Finance department. Mr. Guy would co-operate with Mr. Garnsey in adjusting the Ministry's accounts as at 31 March, 1917.¹ Mr. Garnsey's duties were to include also the organisation of a special section directly responsible to the Assistant Financial Secretary, for the internal audit or check of the financial records by a method of continuous inspection, surprise visits, and testing, so as to ensure that the system was working properly and that no arrears were accumulating.

Mr. Guy and Mr. Garnsey produced a series of monthly reports,² from 1 May onwards, from which it is possible to trace the progress made. They also incidentally made recommendations of wider scope, which led to further improvements.

On 15 May the Finance Board agreed that the work of reconciliation should be extended to the accounts of the local Committees, the date fixed being 30 June.

At the beginning of June, Mr. Mann asked Mr. Garnsey to include within his scope the accounts of several other departments. The progress already made in these departments was reported as follows by Mr. Mann to Sir L. Worthington Evans on 29 June. In Mechanical Transport (M.F.11) the cash reconciliation was completed monthly. For materials, reconciliation had been in progress since the section was formed, and periodical statements were agreed with contractors' records. In Explosives and Propellants (M.F.3), reconciliation was complete for propellants. For explosives, a circular had been issued calling for a statement of cash accounts according to contractors' records as at 31 March, 1917, and comparison with Ministry records was proceeding. For issues of materials no reconciliation had been made, but the record of claims agreed with the Store accounts. The firms' books were regularly examined so as to check the use of material supplied. A monthly reconciliation for drums was in force and its extension to other packages was being considered. In M.F. Tanks

¹ General Procedure Minute 93, 6 April, 1917.

² HIST. REC./R./450/17.

the ledgers had just been opened and reconciliation was being done concurrently. For Aeronautical stores (A.F. 1 and 2) no reconciliation had yet been attempted, but it was being taken in hand.

Mr. Guy and Mr. Garnsey were at this time still completely engaged in reviewing the work of M.F.1 and M.F. Materials; but during June they were arranging to extend their operations to the outlying departments.

(a) UNCHARGED MATERIALS.

Mention has already been made of the various systems on which materials were issued to contractors, and of the deficiencies and arrears that had resulted in the Accounts branches owing to the insufficiency of the information received from other departments. In April, 1917, the Central Stores branch was in process of formation; but meanwhile directions had been given to regularise the Issue Warrant procedure and secure that these essential documents governing the movement of stores should be uniform and contain all the information required for making accurate charges.¹

The next step was to see that the information on the Issue Warrants was properly carried to the Advice and Inspection Notes, and the Notes correctly distributed. By the end of March, Mr. Judd² had made arrangements for this work to be efficiently carried out. There were then more than 25,000 Issue Warrants and Advice and Inspection Notes coming in every day, and any confusion struck at the root of all efficiency in supply as well as in accountancy. Mr. Judd had also strengthened the staff engaged on collecting contract information for the purpose of charging materials and passing bills. A file of some 20,000 contracts was established in a form suitable for routine work.

Before the creation of the Internal Audit section, its predecessor (the Reconciliation Committee) had already begun the work of charging materials which had been issued in the past for recovery in cash or kind. On 13 February, the Ministry Finance Board was consulted on the issue of a circular to contractors asking them to supply details of materials received by them and of recoveries made by the Ministry, for comparison with the Ministry records. It was recalled that, just a year previously, a letter of this kind had been actually sent out, but the Finance department had been overruled and it had come to nothing.³ It was now recognised that the need was urgent to complete the Ministry records, and that there was grave risk of irrecoverable loss. Mr. Mann and the Finance Board therefore gave their approval.

By 27 March Mr. Judd was able to report that substantial progress had been made. He stated the following results:—

(a) Charges to Allies in the last 6 weeks, £4,800,000.

(b) Charges of H.E. Steel for the last 12 months, £3,000,000.

¹ See above, p. 54.

² See Mr. Judd's Report, 27 March, 1917. HIST. REC./R./450/16.

³ See above, p. 42.

(c) American purchases charged since 1 January to Stores, Factories, Allies, and contractors, £40,000,000.

(d) Check of 75,000 bills to verify charges to consignee.

(e) Charges of the bulk of shop gauges issued in the last 15 months. (The balance to be completed in the next fortnight.)

(f) Charges to contractors' accounts (to be checked and recovered by the Conciliation section) of some 1,000 pages of materials issues which cannot be allocated to contracts, so that no price is known. (This is one of the principal duties of the Section.)

Serious arrears had been discovered in Receivable Orders (which are, in substance, drafts on debtors for materials). These had been ignored by contractors to such an extent that some £4,250,000 were outstanding. The pressure which had been brought to bear had not proved fruitful for the first two months of 1917, but was now beginning to show results. In cases of serious neglect, recourse was had to recovery by deduction from bills.

Mr. Guy and Mr. Garnsey, in their first report (for April, 1917), stated that some of the returns received from contractors in response to the circular had revealed the existence of material received by them from Stores or from other contractors which had not yet been invoiced by the Ministry and was not shown in the ledgers. The exact amount could not yet be determined, but certainly many millions were due from contractors and not recorded in the books. As an instance, issues from the Textile Store at Acton Vale had never been reported, except in isolated cases, since its establishment. Millions of pounds' worth of H.E. steel was not yet invoiced.

(b) CENTRAL INVOICING.

The third report (for June) states that contractors were constantly demanding proper invoices of sales by the Ministry, but it was often found difficult or impossible to trace the source from which the material had been sent to them. In a large number of cases it was necessary to rely entirely on the contractors' own statements. The Finance department was investigating methods of charging issues from the Ordnance Factories and Ordnance Stores.

The report for July recurs to the difficulty of tracing the source from which contractors had received material. It was now proposed to create a Central Invoicing section, alongside the Central Stores branch, where complete information was becoming available.

Under the existing system, one of the essential weaknesses of the accounting was that the invoice for material supplied by the Ministry was prepared only when the consignor's bill was received. The consignor, after his goods were inspected, was ordered to move them and send an Advice Note to the consignee, who signed it and returned it to the consignor. The consignor then rendered his bill to the Ministry, and finally the invoice was prepared and the consignee

charged. Invoicing was thus suffering from all the causes of delay, including lack of contract information, etc. Apart from these delays, some bills were paid by Munitions Committees, with the result that in these cases there was no headquarters control over charges to consignees. There was a further disadvantage in cases where contractors were being financed to proceed with manufacture before prices were fixed. The department might have paid 80 per cent. of the consignor's price without any charge against the consignee. Months might elapse between the shipment of the goods and the charge.

On 11 July, at a meeting of the Central Accounts Committee, Mr. Guy proposed the establishment of a Central Invoicing section to invoice consignees on receipt of Advice Notes. The Finance Board approved this suggestion on 17 July.

There was considerable delay on establishing the Central Invoicing section. At the end of August, it was reported to the Finance Board that the Central Stores branch had neither staff nor floor-space available. Mr. Guy pointed out that the lack of a central invoicing system was causing a loss of interest on some £6,000,000, representing an average of three weeks' delay in obtaining the information necessary to prepare a bill.

The section was established in October, 1917. In November it was being arranged that the Central Stores branch, which then controlled the movement of all goods from Store to contractor, or from contractor to contractor, should complete its control over the movement of all material from the time when the virgin metal was purchased till the finished product was delivered to the Army. The Central Stores branch gave instructions for movement by means of the Issue Warrant. As soon as information was received that the movement had taken place, intimation was sent by the Central Stores branch to the new Central Invoicing section, which was responsible for invoicing consignees. The result was that the consignee was charged almost simultaneously with the receipt by him of the material. The advantage gained by this change of system was shown by the following figures for the weekly average of charges for store issues to contractors :—

Under the old system of invoicing—

For the months of November, 1916	..	£321,000
" " " " December	..	308,000
" " " " January, 1917	..	224,000
" " " " February	..	396,000
" " " " March	..	295,000

Under the new system—

For the months of April	..	£358,000
" " " " May	..	534,000
" " " " June	..	664,000
" " " " July	..	761,000
" " " " August	..	743,000

In addition to the above increase in the weekly average, of the £47,000,000 worth of raw material purchased *ex* certain U.S.A. contracts

from December, 1915, to May, 1917, consignee contractors had now been invoiced for £26,000,000 up to 31 May. Between that date and 31 October over £15,000,000 had been invoiced, leaving £5,450,000 still to be dealt with.

By February, 1918, it was reported that £35,000,000 worth of materials had been invoiced in advance of Ministry payments, and the interest so saved came to a large amount.¹

(c) ECONOMY OF MATERIALS.

In 1917, owing to the submarine campaign, the economical use of material became a matter of the first importance. The investigations of the Internal Audit section showed that the existing system did not ensure that the materials available were distributed to the best advantage and used by contractors with the least possible amount of waste.

Mr. Guy and Mr. Garnsey pointed out, in their first report (1 May, 1917), that the records failed to show what quantities of materials were lying at contractors' works for use as required. There appeared to be a lack of control, and even of knowledge, of these stores belonging to the Ministry. The report for May recurred to this subject and urged that the Central Stores branch should receive periodical statements of the quantities of materials held by contractors on their own or the Ministry's behalf, and a rough estimate of the number of weeks' supply in hand. It appeared that many contractors were holding much larger stocks than were needed for current manufacture. The duty of seeing that contractors were not supplied with materials and components in excess of their reasonable requirements had been ignored by some Supply departments. Thus, when a fuze order was placed, the Metal Supply department was not notified of the exact amount of metal required, and did not accept responsibility for keeping to that limit. The July report pointed out that material was sent to a contractor on the basis of the quantities he would require, if he were making full deliveries, not on the basis of his actual output. When deliveries were short, much material accumulated and was locked up, though it might be urgently needed by the Ministry or by other contractors.

Another aspect of economy in the use of material was stressed in the report for May. There appeared to be no check on the waste of metal by contractors. Some contracts called for the use of waste metal, but there was no evidence that it was being used. It was clear that some machinery was needed to supervise the use of material.

In consequence of these representations, Mr. Mann directed that a Metal Accountancy section should be formed, with the duty, among others, of drawing up Conversion Tables for use in cases where the contractors returned goods to the Ministry in a different form from the materials supplied. The Supply departments were called upon to furnish scales of conversion.

¹ A description of the new system of invoicing is given in Appendix 12 to P.A.C. Report (1918).

The question was referred to the Minister. Mr. H. A. Fortington, Director of the Statistics and Requirements section in the Non-Ferrous Metals department, proposed a reorganisation of the records on lines which would ensure that the Ministry should know the distribution and movement of all metal containing copper or spelter, and that every transaction could be translated into its financial equivalent, so as to guard against omissions in accountancy. In discussion at the Finance Board on 12 June, it was agreed that nine-tenths of metal accountancy was a matter of accounting rather than book-keeping. What the Accounts sections needed to know was the amount of metal sent to contractors, the scales on which they used it for making brass rod, strip, etc., and the percentage of waste to be allowed. On 3 July the Board appointed a Committee to draw upon a scheme of accounting for inclusion in a more general scheme for the control of metal distribution which was being considered by a number of Committees in the Ministry.

The duty of checking conversion tables furnished by other departments rested with a section of D.M.R.S. The Assistant Director of this section stated, in evidence before the Financial Advisory Committee in July, 1917, that the only accurate tables in his possession were those for guns and gun ammunition. The conversion tables then in existence were not, in his opinion, sufficiently accurate for accounting purposes, but he considered that they would show whether waste was going on or not. It appeared that his department had not called upon Supply to furnish tables, and that the Accounts department had not pressed them to do so.

The Comptroller and Auditor-General in his report (March, 1918) on the Accounts for 1916-17, commenting on the work of the Internal Audit department, observed :—

“ The problem of accounting for free issues, which is of prime importance . . . involves the creation of conversion tables for the check of output under the various contracts. The progress here appears to be much less than in other directions of the Internal Audit departments' activities.”

Replying to this point before the Public Accounts Committee on 30 May, 1918, Mr. Garnsey admitted that the work of accounting for Free Issues had been slow, but this was due to its extreme difficulty.

“ It is very difficult indeed to say exactly at what stage the contractor has accounted for all the material he has received, where his product is quite different from the material sent to him. We have got to get out tables ; we have to take what is called a master lay-out, showing the percentage of the material that he is entitled to use in making a given article, and it always differs from what in fact takes place at the contractors' works, and then there is a wrangle as to whether he has used too much of this article or of that article. I want to make it clear to the Committee that this work is much more complicated than the other work, and we shall not get along with this so rapidly as in the case of the other work.” (*Qu.* 2109.)

(d) RESULTS OF THE INTERNAL AUDIT.

The work of verifying deliveries of material to contractors, as shown in their returns, by means of the Advice Notes received by the Ministry, of calculating the output which should have been obtained from material issued " free " with provision for due allowance for waste and for recovery of the surplus, and of writing up new materials ledgers for all running contracts, was continued for more than a year before the transactions up to 31 March, 1917, were all cleared up. The same procedure was then applied to the transactions of the following financial year. The monthly figures for recoveries from contractors, as given in Messrs. Guy and Garnsey's periodical reports, were as follows :—

SUMS RECOVERED FROM CONTRACTORS IN RESPECT OF ISSUES OF
MATERIALS.

Month.						Recoveries in respect of period.		Cumulative Total Recoveries
						1916-17.	1917-18.	
1917—						£	£	£
May	..	..	..	..	about	2,000,000	—	—
June	..	..	..	..	.. about	1,000,000	—	3,000,000
July	..	..	..	..	.. about	625,000	—	3,625,000
August	..	..	..	..	..	655,000	—	4,280,000
September	..	..	..	..	..	408,000	—	4,688,000
October	..	..	..	..	..	416,000	—	5,104,000
November-December	..	..	..	..	..	798,523	—	5,902,523
1918—								
January	..	..	..	..	..	444,210	—	6,346,733
February	..	..	..	..	..	554,645	—	6,901,378
March	..	..	..	..	..	451,354	—	7,352,732
April	..	..	..	..	..	306,437	—	7,659,169
May	..	..	..	..	..	291,327	—	7,950,496
June	..	..	..	..	..	185,535	—	7,639,749*
July	..	..	..	..	..	497,267	—	8,137,016
August	..	..	..	..	..	131,691	109,670	8,378,377
September	..	..	..	..	..	112,771	25,540	8,516,688
October	..	..	..	..	..	40,609	430,400	8,987,697
November-January	..	..	..	..	..	200,616	143,059	9,331,372
1919—								
February	..	..	..	..	..	—	63,691	9,395,063
March	..	..	..	..	..	—	65,095	9,460,158
April	..	..	..	..	..	—	36,588	9,496,746
May	..	..	..	..	..	—	214,595	9,711,341
June	..	..	..	..	..	—	910,021	10,621,362

* The figures from this date exclude material not previously charged to Munitions Committees, which was henceforth separately reported on.

The investigations of the Internal Audit section incidentally brought to light numerous cases of overpayments to contractors. The figures for these in the monthly reports were as follows :—

OVERPAYMENTS TO CONTRACTORS.

Month.	Period 1916-17.		Period 1917-18.		Cumulative Total of Charges.
	No. of distinct cases discovered.	Monthly Total.	No. of distinct cases discovered.	Monthly Total.	
		£		£	£
1917—June	34	21,511	—	—	—
July	33	141,974	—	—	163,485
August	27	345,419	—	—	508,904
September	27	145,153	—	—	654,057
October	38	224,022	—	—	878,079
November-December	26	158,678	—	—	1,036,757
1918—January	19	213,294	—	—	1,250,051
February	26	66,433	—	—	1,316,484
March	44	45,718	—	—	1,362,202
April	41	173,836	—	—	1,536,038
May	37	77,601	1	380	1,614,019
June	18	11,919	4	9,337	1,635,275
July	12	388,743	7	144,704	2,168,722
August	13	154,920	16	179,809	2,503,451
September	15	26,336	27	143,248	2,673,035
October	17	45,078	48	167,458	2,885,571
November-January	—	—	165	229,857	3,115,428
1919—February	—	—	91	219,258	3,334,686
March	—	—	73	93,127	3,427,813
April	—	—	42	86,765	3,514,578
May	—	—	83	113,461	3,628,039
June	—	—	59	29,742	3,657,781

In April, 1918, Mr. Guy and Mr. Garnsey summarised as follows the recoveries obtained from contractors by the work of verifying failures to charge for materials :—

(a) By reference to contractors' books :

For material not charged	£7,500,000
For overpayments	1,500,000

(b) By reference to records of American purchases, Stores and Factory issues, and other sources of supply

15,000,000

(Note.—In addition, some £100,000,000 not previously traced to destination had been traced to Stores and Factories. This perfected the records, but produced no cash result.)

(c) By reference to records of issues to Allies, particularly from Woolwich. (Delay of charges had been so great that it was hard to distinguish delays from omissions. Probably it was more accurate to state this item as correction of inordinate delay. In stating the figures, delays of three to six months were eliminated.)

£15,000,000

Total recoveries £39,000,000

VIII. The Institution of Double Entry.

The work of the Internal Audit section was primarily retrospective. It aimed at clearing up past transactions down to 31 March, 1917, and this undertaking occupied the greater part of the ensuing financial year, 1917-18. The second great undertaking, which was carried out simultaneously, was the reconstitution of the system of accounts on a commercial basis.

Mr. Guy had pointed out to the Advisory Committee in March, 1917, the necessity of instituting the system of double entry. The heads of the Finance department described the defects of the earlier system as follows¹:—

The accounts were kept by single entry, upon a system of receipts and payments (as distinguished from income and expenditure). This meant that the accounts took no cognisance of income accruing, or expenditure incurred, until some cash transaction resulted.

At its origin, the Ministry had been engaged almost solely in purchasing, and for this purpose the system had been adequate; all that was needed was a record of contractors' accounts for the payment of bills. But now that the work had developed into the manufacture, sale, and consignment of goods on a large scale the old methods had proved totally inadequate for a fully rounded business organisation. Apart from some comparative costs, the accounts were "wholly useless as an instrument of economical administration." Under any system of single entry, there was no automatic check on clerical accuracy or on transactions between departments. Many substantial errors must result, which only comparison with contractors' accounts could bring to light. If a bill-paying section paid for goods without a corresponding charge to the consignee's account, no disturbance of the accounting system would result, since no trial balance was possible.

The writers concluded that the installation of a double entry system of accounting, capable of sectional balancing, appeared to be imperatively needed. Such a system had been carefully considered and approved by the financial heads of the Ministry, but it could not be put into operation until other deficiencies had been made good. In particular a more efficient, though perhaps less numerous staff, and the provision of central accommodation for the now scattered branches of the Finance department were indispensable preliminaries.

The Advisory Committee in their report (9 March) recommended "that the book-keeping system of the Finance department and its branches throughout the Ministry be changed to the best commercial practice as from 31 March, 1917."¹

¹ In the Memorandum of 5 March, 1917, summarised above, p. 60.

A Minute by Mr. Mann, dated 5 March, states that steps had already been taken to carry out the change recommended, that is to say, to substitute the contractor for the contract as the book-keeping unit. At present each contract was dealt with separately; in future, there was to be an account for each contractor, summarising his contracts.

The number of qualified assistants available was not large enough to make it possible to instal the new system simultaneously in all branches. A beginning was made in March, in two of the largest sections, M.F. 1 and M.F. Materials, which together represented more than half the financial transactions of the Ministry. From 1 April, 1917, these sections regularly balanced their books. By means of control accounts, charges for material made by one section to the others were automatically agreed.

As more qualified assistants were obtained, the process was extended to other Accounts branches. It occupied the whole of the financial year, April, 1917, to March, 1918. At the end of this period it was possible to make out an approximate Balance Sheet for the whole of the Ministry's finance, based on trial balances from all sections.

In giving evidence before the Public Accounts Committee in May, 1918, Mr. Garnsey summed up the effect of the change in the following words :—

“The result was that, as at 31 March this year, the whole of the accounts of the various sections of the Ministry were put upon a double entry basis, so that any payment that is made to-day does not automatically, as it used in the old days, get written off and disappear, but it is charged up to the section which has to account for it. That is really the sum and substance of the whole difference between the accounts on the single entry basis and on the double entry basis.”

IX. The Form of Public Accounts.

Mr. Guy and Mr. Garnsey added to their report for June (dated 12 July, 1917) a general review of the Ministry's accounting system, which led to far-reaching changes, not only in the methods of the Department itself, but ultimately in the form of Public Accounts rendered to Parliament. The document was thus of great importance and merits quotation in full.²

“The terms of reference to us asked us to ‘assist in clearing up the position of the financial affairs of the Ministry.’ The breakdown in the Ministry's sales activities led us to concentrate on charges to contractors, with the progress which has been noted in our reports, in which we also included comments on

¹ A.C./77.

² Copy in HIST. REC./R./450/16 (7).

such defects of method as were revealed in the course of this work. We feel, however, that the problem is too big to rely on remedies which may be suggested as an incident of the investigation of the contractors' personal accounts. We propose, therefore, to direct your attention to some matters which contain possibilities of danger unless they are more carefully controlled than at the present time.

" In a well-conducted industrial enterprise, the management uses the accounts as an instrument of practical administration ; the Balance Sheet, with relevant schedules, to examine the concern's status at any time and its employment of capital ; and the earnings statements to examine its costs of operation. In Government accounting, the Balance Sheet was not much used, money spent being regarded as gone when it was charged to an Appropriation Account, except as it might be represented in physical storage. Having no profit and loss, a substitute was supplied by the creation of departmental appropriations for the year's expenditure, the charges to which were carefully scrutinised and no excess allowed. For practical purposes, the central management was the Treasury, and this, doubtless, was satisfactory for peace time operations, where the creation of the Appropriation Accounts was most carefully studied before expenditure was incurred, and where the bulk of the expenditures were administrative.

" The creation of a general Vote of Credit for the Ministry of Munitions removed the usual Governmental form of control, and we gravely question whether any satisfactory substitute has been set up. Financial sanction has, no doubt, been secured at the initiation of each enterprise, but supervision over the conduct of operations seems to us partial and inadequate. The Treasury largely waived its control at the outbreak of war, with the exception of salaries, but corresponding or better machinery should, of course, have been set up by the War Ministries themselves. We have considered how the Ministry of Munitions has met this elementary requirement, and we find the answer not at all satisfying.

" We draw your attention first to those items usually focussed in the Balance Sheet, and which should reflect the Ministry's status at any given time, and furnish a basis for enquiry and control of working capital.

" *Stores on hand.*—The new Central Stores branch finds that the stores taken over include large quantities of shells in bad condition. Shells brought from America which have never been inspected, shells stored in the open, rusty, obsolete, black-listed, unsorted, and so forth. There are several sides to this. One, the possibility (not remote) that we may rely on a statement of shells available for filling, and find that the number requiring rectification, painting, and inspection is so serious as to lead to a real fall-down in the programme. Second, the cost of rectifi-

cation and the scrapping of stocks on hand may run into large figures, at which we cannot hazard a guess. This, indeed, is our point, that we do not know where any reliable assurance could be secured as to whether the figure is £500,000 or £5,000,000; certainly it cannot be secured from the Stores or Finance departments, though the new Central Stores branch is now hard at work on the problem, and will give a formal report, no doubt, as soon as it has completed its survey.

"Open Accounts.—There are on the Ministry's books probably £150,000,000 of uncleared balances. By this we mean moneys paid, but for which the final accounts have not yet been rendered. To the extent to which these are loans at interest, or advances on material supplied to the Ministry awaiting inspection, there is probably no lack of supervision, but there are many open accounts which suggest possibilities of trouble. The Metropolitan Munitions Committee has received some £400,000 per month, which now stands at a debit of some £4,000,000, though, as a matter of fact, the ledger is not even added up. The accounts of the Committee are audited by a reputable firm, which audit is, however, somewhat limited in scope, and merely reaches headquarters in the form of a brief statement of cash payments. It is not known to us whether Stores have been charged with the output of the Committee, or whether charges have been made to contractors of other Committees receiving material from the Metropolitan Committee's contractors, nor whether scrap copper purchased by the Committee from its contractors (some £40,000 monthly) does or does not result from virgin metal supplied free by the Ministry. The amount of advances outstanding, the disposition of material supplied amounting to several millions, and all really important information relevant to the management of the Committee, including its own costs of administration, are largely (though perhaps not entirely) hidden behind the uncleared open accounts.

"We do not suggest that there is anything wrong, beyond the usual failure to charge for materials supplied by the Ministry, and we can assure you that this account is now receiving particular attention, but there are many more not receiving adequate attention or control.

"Liabilities.—As to these, it is sufficient to state that no one knows much about them, and the only important point is to decide whether any danger may arise through this ignorance, or benefit be derived from knowledge of the amount incurred.

"Operations.—From a financial standpoint, the operations of the Ministry begin with a War Office programme, which must be translated into an estimate, which in turn should be compared with the actual payments and rectified from time to time as changes of plan or errors of judgment are discovered. Only rough and ready methods are suitable for these times,

but we doubt whether the lowest admissible standard has been attained in preparing statements of expenditures or in comparing the actual expenditure with any programme, estimate, or standard costs. The estimates are prepared by applying average costs of each commodity to the quantity proposed to be manufactured. This, of course, is correct and intelligible. The actual expenditure appears under certain Vote heads, which bear no relation to the estimate, and only a distant relation to the facts. The absurdities of this statement are so great that it has no defender, and it is therefore unnecessary to specify its defects.

"We submit for your consideration, whether you are content to be without a statement of expenditures having any meaning. Unless, however, there is some executive body to examine such statements and enforce remedies, the effort of preparing such statements might not be justified.

"However, if it can possibly be done, the Ministry should prepare and use accounts that will give it a substantial central control over its departmental expenditures, other than the piece-meal control of passing on individual contracts."

The mention, in the concluding paragraphs, of an "executive body" refers to a recommendation, made in the same report, that a small body should be appointed with authority to assist the Assistant Financial Secretary in carrying out the more important changes which should be approved. Sir L. Worthington Evans submitted this proposal to the Minister, endorsing the further suggestion that the executive body should not be limited to finance, but should be empowered to initiate action and give rulings for the Stores, Contracts, Supply, and Scrap departments, so as to ensure that prices which had been postponed should be fixed, outstanding points determined, and the way cleared for settling debits and claiming payment of credits. Dr. Addison, on 17 July, appointed Mr. Arthur Duckham, Sir E. Moir, and Mr. Garnsey a Committee for these purposes. The first question which they took in hand was the fixing of prices for guns and components and for supplies to the Allies.

At a meeting of the Ministry Finance Board on 10 July, it was reported that the Central Accounts Committee was discussing a form of accounts capable of recording all the Ministry's transactions. The question arose how far commercial book-keeping could be introduced consistently with the necessity of complying with Treasury regulations. Mr. Guy held that it was impossible to duplicate the accounts so as to serve both purposes (a) of writing off expenditure under Vote Heads, and (b) keeping trading accounts to check the operations of each department—their primary object. The Board agreed that it was probably necessary to put the accounts on the basis of a Production Account.

On the recommendation of the Central Accounts' Committee the Board approved, on 17 July, Mr. Guy's proposal that, as from 1 October, 1917, a Central Accounts branch should be established to

clear up inter-departmental transactions and to summarise weekly returns from the Accounts branches. The new branch was also, by means of sectional balances and the system of control accounts, to prepare a Production Account and a Balance Sheet.

Mr. Robinson, the representative of the Treasury on the Finance Board, stated that Parliamentary authority would not be required for the proposed change. It was, however, necessary to consult with the Treasury and the Comptroller and Auditor-General on the devising of a system which would satisfy their requirements. On 16 July, Sir L. Worthington Evans proposed this course to the Minister.

On 24 July, the Finance Board was informed that the Central Accounts Committee had approved in principle the changes in the form of accounts which Mr. Guy proposed. Just at this time the House of Commons ordered the appointment of a Select Committee on National Expenditure, with wide terms of reference which included a consideration of the form of Public Accounts.¹ The Finance Board, however, decided on 31 July that it was not necessary to delay putting the new scheme into operation until this Committee should have reported, but that a letter to the Treasury, which was already in draft, should go forward. The Select Committee did not in fact produce a report on this intricate subject till a year later (31 July, 1918).²

The letter to the Treasury³ explained that the proposals it contained were preliminary to the internal changes described in the following memorandum :—

“ The present method of accounting provides for charging indiscriminately to the Vote not only completed stores but also materials which pass from a contractor to Stores, or from one contractor to another, even though recoverable. This method has been found unsafe, as it made it difficult to secure a satisfactory check on the recovery of these materials.

“ It is proposed to place the accounts of the Ministry on a commercial basis, so far as possible, so that its records will show all work in progress by carrying both materials and cash advances in the hands of contractors as open accounts, and clearly distinguishing these from charges for the finished product delivered to the Army. The Ministry of Munitions

¹ The terms of reference were :—

“ (i) To examine the expenditure which is now being defrayed out of moneys provided by Parliament, and to report what, if any, economies consistent with the execution of the policy decided upon by the Government may be effected therein ;

“ (ii) To make recommendations in regard to the form of Parliamentary Estimates and Accounts, the system of control within the Departments and by the Treasury, and the procedure of this House in relation to Supply and Appropriation, so as to secure more effective control by Parliament over further expenditure.” *Parliamentary Debates* (1917), H. of C., XCVI. 351, 18 July, 1917.

² The Sub-Committee appointed to deal with this part of the reference began taking evidence on 29 November, 1917. See Report VII. (Session 1918).

³ M.F./General/936, 20 August, 1917.

is analogous to the Ordnance Factories with great production expenditure, rather than to those Departments which deal with completely finished products or administrative expenses only. Its accounts should accordingly conform more to the principles of the Ordnance Factory."

The new procedure was designed to give an intelligible statement under three heads, namely, expenditure

- (1) on production of completed articles ;
- (2) on financing advances to contractors, not yet repaid or adjusted ;
- (3) on articles, either actually uncompleted, or not yet passed as completed, in the hands of the Ministry or of contractors.

The expenditure on production would still be shown under the sub-heads in the estimate. It was proposed to expand Sub-head "E *Ammunition* (3) *Machinery and Materials*," which at present provided for raw materials for services of the most diverse character, to form a new sub-head: P. *Advances to Contractors, War Materials, etc.* This was to include "financing advances," "payments on account," and "advances in kind," pending their transfer to Production sub-heads. Finally, Capital advances (*e.g.*, for building and plant) were to form another sub-head: Q. *Capital Advances*.

It was claimed that the effect would be, not only to improve the departmental check, but to reflect the Ministry's actual expenditure more accurately in the Appropriation Account, and that the resultant balance shown as "Surplus to be surrendered" would approximate, more closely than under any alternative arrangement, to the cash balance at 31 March in the hands of the Paymaster-General and of the officers of the Ministry.

The Treasury approved this procedure on 31 August.¹

The way was thus cleared for the internal reformation to which these arrangements were incidental. The meeting with representatives of the Exchequer and Audit Department took place on 21 August, and a week later the Finance Board decided that preparations for the new system of Central accounts should go forward with all speed.

In January, 1918, the Ministry² proposed to the Treasury that the sub-heads of the estimate should be renumbered and arranged in two groups as follows:—

<i>Sub-heads,</i> 1918-19.	GENERAL EXPENSES.	<i>Old Sub-heads,</i> 1916-17 and 1917-18.
A. Headquarters and branch offices, salaries, wages, etc.	A
B. Inspection, research and storage	B
C. Expenses of labour supply	K

¹ Treasury Letter 27692/17, 31 August, 1917.

² M.F./General/1303.

<i>Sub-heads,</i> 1918-19.	GENERAL EXPENSES.	<i>Old Sub-heads,</i> 1916-17 and 1917-18.
D. Housing schemes	L
E. Miscellaneous effective charges	M
F. Non-effective charges	N
G. Compensation to contractors and nugatory payments ¹	—
H. Balances irrecoverable	N

EXPENSES OF PRODUCTION.

J. Advances to contractors and others, war material, running expenses of National factories, etc.	P (August, 1917)
K. Capital Expenditure	Q (August, 1917)
L. Appropriations in aid	O

Further, at the end of 1918-19 a Balance Sheet was to be furnished, accompanied by a Production Statement under the following heads :—

DELIVERIES TO ARMY, ETC.	<i>Old Sub-heads,</i> 1916-17.
Aeronautical supplies	C
Guns and Small Arms	D
Ammunition	E
Tanks	F3
Transport supplies	F1
Trench Warfare supplies	J
Railway materials	F2
Miscellaneous stores	G*

* The old sub-head H. Explosives and Propellants is omitted in the new list.

It was suggested that the question whether this Production Statement should form part of the Appropriation Account or be submitted to Parliament separately should be deferred, pending the report of the Select Committee on National Expenditure.

The Treasury accepted these proposals on 6 February, 1918.²

In July, 1918, the Select Committee on National Expenditure recommended in their Seventh Report certain changes in the form of Public Accounts, designed to bring these accounts more into line with commercial practice, so as to present to Parliament a more significant statement, and at the same time to make the internal departmental accounts a better instrument for financial administration and control. These proposals lie outside the scope of this history, but attention may be called to a Note in which Mr. Garnsey and Mr. Guy stated the conclusions to which they had been led by their experience of the Ministry of Munitions accounts.³

¹ These had hitherto been dispersed among the sub-heads C-J.

² Treasury Letter 42616/17, 6 February, 1918. The correspondence with the Treasury on this subject is printed in Ministry of Munitions Appropriation Account (1917-18), pp. 23 ff.

³ Handed in on 16 January, 1918, and printed as Appendix 5 to the Report. See pp. 70 and 120.

The writers opened with a trenchant criticism of the system of accounts inherited by the Ministry from pre-war practice. They summarised as follows the defects of the prescribed form of official account prepared by the Ministry :—

“ It will be seen that the statement (a) by its essential form takes no cognisance of assets and liabilities, is misleading as a true analysis of expenditure, and furnishes therefore no means of control over the working capital or over expenditure ; (b) furnishes no guide as to the final purpose for which money has been spent ; (c) misleads as to the true amounts of expenditure even on immediate objects of expense ; (d) must always be from six to eight months in preparation after the close of the financial year ; (e) makes no attempt to record the expenditure *incurred* in any financial period ; (f) defies description as to what its totals are or even what they purport to be.

“ If the annual accounts of this large institution have to be furnished in the present form, it is clear that the internal accounts kept to produce the required statements must be totally inadequate as a record of the true position, as there can be no mechanical check on errors or omissions, and even the loss of a ledger would not be revealed.

“ In the past there has been no periodical statement of balances prepared showing the position of contractors' accounts or the financial position as a whole. Even if such a statement had been prepared, there is no guarantee that it would have been complete, because the accounts are kept upon what is known as the single entry basis, and owing to the fact that the assets have been written off to the Vote there is no method by which such a statement could be verified.

“ Further, under the old system of accounting no record is made in the books until cash passes, and therefore no charge is made to consignee contractors for deliveries to them until the consignor's bills are rendered. Consignors are often very late in presenting bills, due to difficulties of inspection, securing consignee's receipt, and in many cases because the contract price is not definitely fixed. Although bills are not rendered, payment must generally be made to the consignor at, say, 80 per cent. to enable him to carry on. It will thus be seen that the logical outcome of the cash system might (and indeed did for a period) relieve consignees of charges, until some totally irrelevant matter was settled with the consignor, *e.g.*, the final price of a cost and percentage contract. We emphasise this point as typical of hidden wastes in the use of capital which are bound to occur when assets and liabilities are eliminated from the books. Experience shows that there is always a very large amount of advances made for goods delivered by contractors but not billed by them, and while that portion which goes direct to the Army or to National Factories involves

no loss of interest, that very considerable portion which goes to other contractors must inevitably cause some loss of interest and some danger of ultimate failure to collect.

“ It seems to us that the only useful accounts that can be rendered by an institution like the Ministry of Munitions (which was developed from an administrative and purchasing department into a large buying, selling, and manufacturing concern) are the ordinary commercial Balance Sheet and Production Statement (or Income and Expenditure).

“ The Balance Sheet would set out the whole of the assets and liabilities of whatever character, including Land, Buildings, Plant, Stores, Repayable Advances, and so on. It would show exactly in what way the money advanced by the Treasury in any financial year had been disposed of. The Treasury might, for the purpose of their accounts, wish to treat this money as gone ; but the Balance Sheet would show precisely what part of the money is locked up in Capital Assets, or is represented in Working Capital, such as Stores, Advances to contractors, etc.

“ The Production Statement, or Statement of Income and Expenditure, should show exactly what had been manufactured for, say, Army use, and should provide for the analysis of expenditure under heads descriptive of its final form—*e.g.*, Guns, Shells, Small Arms, etc.—each head being subdivided, if necessary, into the several varieties, so that unit costs may be studied and used for administrative purposes.

“ In the past the Minister has received no accounting statement of any use in administration or in securing economy as a whole, and has had to rely on a few National Factory cost accounts, contract statistics, and such odds and ends of departmental statements as enterprising departmental heads may choose to submit. Senior officials have had no accounts or statements submitted to them showing the results in their departments, so there has been little, if any, encouragement to economy.

“ It should, we think, be pointed out that the internal accounts of the Ministry of Munitions have recently been subjected to considerable reorganisation, and an attempt is now being made to place the whole of the Ministry's records upon a proper commercial basis on the lines indicated above. This reorganisation must necessarily take time and be carried on with the least possible inconvenience, so as not to interfere with the current work of the various departments ; but it is hoped that within the next few months this reorganisation will be completed, and thus the Balance Sheet and the Production Statement on the lines suggested will be capable of being prepared and submitted to the proper authorities for due examination of the financial affairs of the Ministry as a whole.”

The above statement was avowedly written solely from the standpoint of the expert in accounts. It did not take into consideration the need of safeguarding the constitutional principle of appropriation or other interests of which the Treasury is the appointed protector. The statement has been quoted here, partly as giving a clear account of the reform that was being carried out, partly as a reminder that, throughout its history, the Finance department was working under a serious disadvantage. As the writers pointed out, the form of the internal accounts was governed by the form of the statement required by Parliament. This could not be altered without Treasury approval, and the need of altering it was not seriously faced before the question was taken up by the Select Committee in the winter of 1917-18. When the financial administration of the Ministry is criticised, this handicap should be remembered ; and it should be set down to the Ministry's credit that the movement for a reform of the Public Accounts really originated in the internal reorganisation independently undertaken by the heads of the Finance department earlier in 1917.

In May, 1918, Mr. Guy and Mr. Garnsey were able to state that an approximate Balance Sheet had been made out, and the verification of the provisional figures was in progress. Also, the first Production Statement of the Ministry, covering the period 1-24 April, 1918, was now ready.¹

In his report (April, 1919) on the Ministry Accounts for 1917-18, the Comptroller and Auditor-General observed that the important accounting reforms initiated by the Ministry in 1917, together with further alterations introduced, " have had a very favourable influence on the accounts for the latter part of 1917-18, and for the subsequent period. The changes made in 1917-18 led up to the introduction of the scheme as a whole on 1 April, 1918, and as a result the Appropriation Account under review contains features which differentiate it considerably from earlier accounts.

" The fundamental change was the application of a revised system of double-entry book-keeping to the bulk of the transactions of the Ministry, effected through sectional accounts, and controlled by a central account, working up to a consolidated Balance Sheet. The completeness of the scheme is affected only by the consideration that the centralised account does not provide for a comprehensive controlling record of the stores delivered to the Ministry's Stores depôts.

" Subject to this limitation, the scheme was undoubtedly far-reaching and effective, and, as stated, the results appear to have been very good. I have not yet received the first periodical central account of the Ministry, and am therefore not in a position to report finally on the workings of the system ; but it is clear that two very great advantages accrue from the new method :—(a) every payment or receipt by the cashier must be taken up in the sectional accounts for ultimate clearance, and (b) the controlling authorities are enabled to detect with much greater ease and certainty those parts of the accounting machinery which are not operating with the desired efficiency."

¹ Report for April, 1918. HIST. REC./R./450/17.

X. The Special Investigation Section.

The second stage of these reforms was the reconstruction of the past transactions of the Ministry from the beginning to 31 March, 1918, so as to put them on the double entry basis which had been introduced from that date. In April, 1918, when the Internal Audit section had completed the first part of its task, Mr. Guy and Mr. Garnsey proposed to the Financial Secretary that every past payment made by the Ministry down to the end of March, 1918, should be checked and traced to its ultimate destination, notwithstanding that it had been written off to a Vote head. They pointed out that, under the Government system of accounting, all payments were chargeable to the Vote head at once, though they might in fact be recoverable or spent in the purchase of material in which the Ministry continued to be directly or indirectly interested. The difficulty of checking accounts under this system was obvious; and in the past items of this nature had been lost sight of, because the accounts provided no check.

The writers, accordingly, proposed that a special staff should be formed for this purpose. It was estimated that, with a staff of 500, the work might be done in 18 months. The cost might amount to £150,000, but the recoveries from debtors ought to make the work pay for itself.

The scheme was approved, and Mr. Churchill announced its adoption in the House of Commons :—

“ This process of inquiry, which in the initial stages was called the break-down gang, is still continuing, and it has been highly profitable from week to week. I now mean to elaborate and extend it, with the large increase of staff which will be required for that purpose, and on a very much larger scale.”¹

Sir L. Worthington Evans made a more detailed statement :—

“ Speaking of the break-down gang, I have my right hon. Friend’s authority, provided I can get the staff, and that is the difficulty, because I must have peculiarly highly qualified accountants for this business, to now work backwards, and, having started the double entry system as from 1 April, to go over the books of the Ministry and put them on the double entry system from the commencement.”²

Mr. T. L. Judd was asked to undertake this task, and was relieved from responsibility for current work about the middle of June.

Mr. Judd formulated the object in view as follows :—

“ It seems to me that the objective should be to prepare a Production Account for the 2½ years ” (1 October, 1915, to 31 March, 1918) “ and a Balance Sheet as at 31 March, 1918, which Balance Sheet should be reconciled with, and in fact take the place of, the Approximate Balance Sheet which has already been prepared as at 1 April, 1918. the existing

¹ *Parliamentary Debates* (1918), *H. of C.*, CV., 1159.

² *Parliamentary Debates* (1918), *H. of C.*, CV., 1189.

books of account, whether relating to Stores, Factories, Ministry agents, Imprest Committees, etc., being brought into agreement therewith."

Mr Judd was not prepared to say that this undertaking was entirely feasible. It was likely that some of the original information would not be available.¹ He found that the old War Office ledgers which had been in use till January, 1916, were "very fragmentary in their records," and that the loose-leaf ledgers used from January, 1916, to March, 1917, were "in a very unsatisfactory condition and lacking in information, such necessary particulars as the quantity of material issued free to contractors being almost entirely missing."

Mr. Judd further inspected the records of the various Ministry agents, both at headquarters and in the provinces, with a view to ascertaining the best method of tracing the movement of material, especially in the early days of the Ministry. He found that the records of local Depôts, Stores, and Bonds were in agreement with those of the Chief Stores Auditor to December, 1916. From 1 January, 1917, the local records were in better shape than the records at headquarters. The Factory records, in the several cases inspected, were incomplete as to issues into Factories, but were, generally speaking, complete as to output for the earliest days of production, and far superior to any records existing at headquarters. He accordingly decided to check all movements of materials through every link in the chain from the raw state to the delivery of the finished product to the Army.²

For a considerable time the work of the section was hindered by hopelessly inadequate accommodation. Mr. Judd originally estimated that, since a very large collection of ledgers and other documents would have to be assembled, the staff of 500 would need twice the usual amount of floor-space. On 20 August, in spite of frequent applications to the Office of Works, room had been provided only for 80. Temporary premises at the Imperial Institute were not occupied till the third week in September. Accommodation at Hertford House was promised at the end of October. The recruiting of the staff was consequently delayed. Its total number at the beginning of October was only 195, out of an establishment of 525. The delay was the more serious in that, upon the cessation of the War, the power of recovery might be seriously diminished, and the Ministry might not be able to make a settlement in full discharge with contractors whose position was not cleared up.

In his report (April, 1919) on the Ministry Accounts for 1917-18, the Comptroller and Auditor-General stated that, in spite of difficulties of accommodation and staff, "from reports that have come before me, it appears that much valuable preliminary work has already been done, both on general lines and also in the direction of instituting investigation into particular sections of the accounts which appeared to give evidence of weakness and possible loss."

¹ Minute to C.M.A., 9 May, 1918. Copy in HIST. REC./450/16/9.

² Report for June (27 July, 1918). HIST. REC./R./450/18.

CHAPTER IV.

FINANCE ORGANISATION UNDER THE MUNITIONS COUNCIL.

I. Introductory.

The reforms initiated in Dr. Addison's term of office, as described in the last chapter, were in the main changes of administrative method, designed to clear up the past transactions of the Department and to set the accounting records upon a satisfactory footing for the future. Under Mr. Churchill, nothing remained to be done in this field, except to carry these reforms through to completion. The distinguishing characteristic of Mr. Churchill's ministry was that attention was directed rather to the higher problems of financial control.

This shift of the focus of attention was partly due to the new Minister's keen interest in studying the proper organisation of the Ministry from above downwards. It was also occasioned by the appointment, almost simultaneous with the change of Ministers, of the Select Committee on National Expenditure. This body naturally contained several members with long experience gained by serving on the Committee of Public Accounts. It was instructed to consider what economies could be effected in the expenditure of the moneys voted by Parliament, and "to make recommendations in regard to the form of Public Accounts, the system of control within the Department and by the Treasury, and the procedure of this House in relation to Supply and Appropriation, so as to secure more effective control by Parliament over public expenditure." The Committee was, in fact, to discover what means there were of making good, to some extent, the loss of Parliamentary and Treasury control over the volume of war expenditure, which had been sacrificed by the procedure of the Vote of Credit. Approaching the question from this side, the Committee was not so much concerned with systems of internal accounts and records of money already spent as with the possibility of setting a limit to expenditure before it was incurred, and imposing some check on the outflow of money from the Exchequer. Since the War Office and Ministry of Munitions together were responsible for almost three-quarters of the monthly expenditure (excluding advances to Allies and Dominions) out of the Vote of Credit, these Departments stood in the centre of the picture, and the fiercest light beat upon the Ministry. The Committee were persistent in their recommendations that the representation of the financial interest on the supreme Council should be strengthened, and that financial criticism should be brought to bear on programmes of expenditure at the earliest possible stage. The Minister and his advisers were by no means blind to the importance of the end in view; but they were more conversant than the

Committee with the obstacles that presented themselves when it came to devising the means of attaining it. Hence the Department and the Committee carried on a sort of controversy, the outcome of which was that some of the Committee's recommendations were adopted, others rejected as impracticable.

In the course of this discussion, the vital question of the control exercised by Contracts over prices naturally emerged, and with it the perennial problem of the relations of Supply, Contracts, and Finance. In February, 1918, the functions of these departments were once more defined in such a way as to strengthen the position of Contracts. The tendency of the change was in accordance with the recommendations of the Select Committee, who upheld the traditional doctrine of the Civil Service against what has been described as the business man's ideal.

In the course of 1918, however, the movement in the reverse direction gathered strength again. The Heads of Supply pressed for decentralisation in the fullest sense, that is to say, the grouping of Contracts, Finance, and Stores sections round the Supply sections as nuclear units, and in subordination to the Supply Controllers. The history of this final attempt of the giants to scale the Olympus of the Civil Service lies beyond the scope of the present chapter, and will be reserved to the next.

II. Finance and the Munitions Council.

Mr. Churchill's first administrative reform was the institution of the Munitions Council. Before considering the position of Finance in relation to this body, an incident must be mentioned which belongs to the closing weeks of Dr. Addison's term of office.

On 2 July, 1917, Dr. Addison approved a suggestion made by Sir L. Worthington Evans that the Financial Advisory Committee should report on the organisation of Finance and Contracts.¹ When the change of Ministers occurred at the end of the month, the Committee had not had time to produce a report. The members of the Committee who were then in London,² however, drew up a memorandum, dated 17 August. This document is mentioned here because it went somewhat beyond the terms of reference and contained proposals for a supreme council, which it is interesting to compare with the actual constitution of the Munitions Council. It will be observed that on the suggested Board Contracts and Finance are much more strongly represented.

It was recommended that the Minister should be advised by a small Board of, perhaps, five responsible executive officers, supplemented by two unattached advisory members. The Board, it was suggested, would decide the great mass of technical questions, referring to the

¹ Some of the evidence given before the Committee will be mentioned below, p. 104.

² Sir Clarendon Hyde (Chairman), Mr. Owen Smith, Mr. Hambling, and Mr. Allan.

Minister only such as were of great importance or raised matters of principle. Contracts and Finance were to be represented by two out of the five executive officers. The constitution was to be as follows:—

The Minister Chairman.
 Parliamentary Secretary .. . Vice-chairman.
 Two representatives of Supply departments (grouped).
 Director-General of Contracts, having under him—

Directors of Contracts attached to Supply departments ;
 Cost investigations (accountancy and technical) ;
 Munitions Works Board.

Assistant Financial Secretary, having under him Directors for such sections as—

Finance (Estimates, Treasury, etc.) ;
 Capital expenditure, Advances ;
 Accounts ;
 National Factory Accounts ;
 Central Stores Accounts.

General Secretary of the Ministry,
 Establishment ;
 Requirements and Statistics ;
 Common Services.

Two Advisory members without departmental duties.

The signatories considered that the Contracts department was essentially a separate entity, which should be strengthened and made independent. All the existing Office orders should be cancelled and new ones substituted. The Supply departments should be grouped and invited to select two Board members. The demarcation between Contracts and Supply should be drawn by mutual agreement. Finance should include all capital expenditure and advances, relations with the Treasury, and control of the Accounts department.

This memorandum was dated only the day before the Minister's minute announcing the organisation of the Munitions Council, and consequently much of its contents was either anticipated or excluded.

The Minister wrote :—

“ The time has come to interpose between more than fifty separate departments on the one hand and the Minister on the other, an organism which in the main will play a similar part and serve similar needs as the Board of Admiralty or the Army Council. It has been decided, therefore, to form the departments of the Ministry into ten groups, classified as far as possible by kindred conditions, placing in superintendence over each group an experienced officer of the Ministry, and to form these officers into a Council for the transaction of business of all kinds in accordance with the general policy which the Minister receives from the Cabinet.”

On the new Council, the interests of Contracts and Finance were represented by one member (Sir Herbert Hambling) out of thirteen. The Office Notice announcing the institution of the Council¹ refers to finance in the following terms. It was laid down that, while Heads of departments would continue to be responsible for the efficient administration of their departments, and the necessary executive action would be taken by them, "all important questions, particularly matters which may affect general policy or other departments *or which from their magnitude or novelty require financial sanction*, will be referred by them to the member of the Council to whom their group is attached."

This announcement, however, was only preliminary. The internal organisation of the Finance Group had still to be considered. In a Minute of 21 August, on the memorandum from members of the Financial Advisory Committee above mentioned, the Minister wrote that the organisation of Contracts, Supply, and Finance under the Finance member required early decision. He was inviting private expressions of opinion by minute or letter.

On this point Mr. Mann had expressed his views in a minute to Sir L. Worthington Evans at the beginning of August. He pointed out that the work of the Finance department now fell into three divisions :—

(a) *General Finance* (the provision of funds and approval of the appropriation of them) : relations with the Treasury, sanctioning expenditure, etc. ;

(b) *Accounts* (the collection and payment of moneys and accounting for them) ;

(c) *Contract work* (securing economy in purchase) : negotiation of important contracts, cost investigations, etc.

Dr. Addison had charged Finance with this third class of duties, because the negotiation of important contracts largely depended on accountancy costs. The result had been some overlapping between Finance and Contracts. Mr. Mann thought that Contracts should be remodelled, and that some Finance officers who were now doing contracts work should be transferred to it.

The organisation he proposed was shown in the following chart :—

Financial Secretary.

Assistant Financial Secretary.

Finance (Controller or D.G.M.F.).

Accounts (Controller or D.G.M.A.).

Contracts (Controller or D.G.M.C.) : Negotiation of prices and terms ; Cost investigations ; Contract drafting and recording.

The outcome of the discussions which followed differed from these proposals in some important respects. The Minister did not appoint a Financial Secretary until 1918, though Sir L. Worthington Evans, a

¹ General Memorandum 21, 18 August, 1917.

Parliamentary Secretary, continued to interest himself in the problem of financial organisation, and from June, 1917, became the orthodox official channel for references to the Minister from the Finance department.¹ The supreme Finance Officer was the Finance Member of Council, whose position, as not being of ministerial rank nor holding a seat in the House of Commons, was on a lower level.

Further, it was now recognised that, under the system hitherto in force, the duties and responsibilities concentrated upon the Assistant Financial Secretary had been too numerous and heavy. The Finance Member agreed with the Minister and the Council that this office should be abolished, and that his contracts function should be restored to the head of the Contracts department.²

Mr. Mann, accordingly, ceased to be Assistant Financial Secretary and became Controller of Contracts, carrying with him to his new position those functions of "super-director of Contracts" which he had exercised in succession to Mr. Lever. On the other hand, the Cost Accountancy branch remained for the present with the Finance department. Mr. Mann also ceased to be Accounting Officer of the Ministry, being succeeded in that office by Mr. S. Dannreuther, who became Controller of Munitions Finance.

The group (F) presided over by the Finance Member comprised the following departments:—

Munitions Finance : Controller, Mr. Dannreuther (Accounting Officer).

Munitions Contracts : Controller, Mr. Mann.

Munitions Works Board : Chairman, Mr. F. Palmer.

Controlled Establishments Finance : Assistant General Secretary, Mr. Owen Smith.

Lands : Director-General, Sir Howard Frank.

Central Stores : Deputy Director-General, Major the Hon. L. H. Cripps.

Salvage : Director, Captain Greer.

While these matters were still under consideration, the First Report of the Select Committee on National Expenditure appeared on 24 October, 1917. The Committee recognised that the provision of munitions was the "one object" of the Ministry and must predominate over financial considerations. But they urged that full financial scrutiny of schemes and programmes at the proper stage would not only promote economy, but actually accelerate production by preventing waste of effort, material, and labour.

They divided their remarks and recommendations under the two heads of internal and external financial control. The proposals for an increase of Treasury control have already been mentioned.³ The recommendations for strengthening internal control will here be taken *seriatim*.

¹ General Memorandum 10, 8 June, 1917.

² Minute of Sir H. Hambling to Sir L. W. Evans, 7 January, 1918. C.R./4385.

³ See above, p. 5.

III. The Appointment of a Financial Secretary.

The Select Committee pointed out that neither of the Parliamentary Secretaries was specially responsible for Finance, which was represented on the Munitions Council only by one member, standing in the same relation to the Ministerial members as the heads of the Supply departments. They contrasted this organisation with the Army Council, which not only contained a Financial Secretary of ministerial rank, but also a Surveyor-General of Supplies responsible for contracts and the commercial side. While recognising that the reorganisation of the Ministry was still in a transitional stage, the Committee was "satisfied that with the change the place of Finance in the organisation of the Ministry is still lower than it was before."¹

The Committee understood that the Minister held himself responsible to Parliament for finance. "In view of the manifold activities of the Ministry and the intricate nature of the financial transactions, it is not possible for the Minister of Munitions himself to take effective charge of the Finance department and form the proper and necessary link between the House of Commons and this great spending Department.

They recommended

"that one of the Parliamentary Secretaries should be charged with the finance of the Ministry and be responsible to Parliament, as are the Financial Secretaries to the Admiralty and the War Office. He should have power to initiate any steps that seem good to him for safeguarding the interests of the taxpayer."²

On the merits of this recommendation the opinion of Council Members was divided. Several members denied that the position of Finance was lowered by the recent changes, and rebutted the analogy of the Army Council by arguing that the Surveyor-General of Supplies corresponded to the Council Members for the Supply groups of the Ministry. It was pointed out that the difference between the Ministry and the Admiralty and War Office might be more accurately expressed as follows. At the War Office, the Surveyor-General of Supplies had the duty of regulating the manufacture and purchase of clothing, food, etc., for the Army, on requirements fixed by the General Staff; and to some extent he could regulate demands. At the Admiralty, the Director of Contracts purchased naval and victualling stores, etc., and placed contracts for new construction. He had no responsibility for supply. The requirements of the Naval War Staff reached him through the professional departments and the Naval Victualling and Ordnance Stores departments. The Ministry, on the other hand, was wholly a Supply and Contracts department. The Minister himself was in the position of a Surveyor-General of Supplies. This differentiated the Ministry from the War Office and Admiralty, which had other large and complex services apart from

¹ Report I. (1917), paragraphs 26-28.

² *Ibid.*, para. 31.

supply. The Minister could question the necessity of War Office requisitions, and so influence demands in the interests of economy and co-ordination. No one man could act as Surveyor-General of Supply to the Ministry without duplicating the Minister.

There was some support for the proposal to appoint a Financial Secretary ; but others feared that his presence on the Council would weaken the Finance Member.

The Minister, after some delay caused by considerations of a personal nature, decided to act in accordance with the Committee's recommendation. Sir H. Hambling, the Finance Member, owing to the pressure of his own business, had asked in December, 1917, to be relieved of his duties and he left the Ministry in January, 1918. On 4 February, 1918, it was announced that Sir L. Worthington Evans had been appointed Financial Secretary, and that he would "act for the Minister in all matters relating to Finance, subject to such directions as may be given by the Minister from time to time. The work of the Finance, Accounts, and Contracts departments and the Munitions Works Board will also come under his general superintendence, and the heads of these departments will refer to him accordingly. Pending further directions, the Salvage and Stores department and Lands department will, for administrative purposes, be attached temporarily to the General Service Group under the Secretary, but they will refer all questions of Finance and Accounts to the Financial Secretary."¹

The Financial Secretary was assisted by a Standing Committee, which met first on 4 February, 1918, and weekly thereafter.

In their report of 6 March, 1918, the Select Committee took up again the representation of Finance on the Munitions Council. They observed that the officers of the Ministry were responsible for the actual disbursement of the enormous sums committed to their charge and were "practically the tax-payers' only security that the money is wisely spent." While appreciating the value of the work done by the Supply officers, the Committee considered that they had "under-estimated the importance of the financial aspect. We do not observe sufficient recognition on their part that they stand towards the Nation somewhat in the position of trustees who have moneys entrusted to their charge, and therefore bear the corresponding obligation of being in a position to show that adequate steps have been taken to safeguard national expenditure, should criticisms be made at any future time. In this connection it must not be forgotten that the Supply departments are in another form either traders supplying the goods or closely associated with the traders."

The Committee thought that "with a truer conception of their respective duties, the attitude of the Supply and Finance branches should have been that of close friends and eager helpers," whereas

¹ Office Notice, circulated by the Secretary to Members of Council and heads of departments in the Finance group.

in fact they found a disposition on the part of some at least of the Supply departments "to regard the Finance and Contract branches as a hindrance to the prompt carrying out of their work"—an attitude which made neither for efficient work nor for economy.¹

It is perhaps questionable whether the remedy which the Committee went on to propose would have touched the disease at the right point. The friction between Supply and Contracts, where it existed, arose chiefly from the personal characteristics of some of the officers themselves, self-assertiveness, eagerness to obtain results regardless of cost, or incapacity to understand the bearing of close co-operation on the efficiency of a spending Department as a whole. Such defects could be mitigated by an exact delimitation of functions and by assigning definite rights and duties to the Contracts and Finance officers, and a status sufficient to enable them to hold their own if conflict should occur. The Department had already made a move in that direction,² and the Committee itself recommended, elsewhere in this Report, that it should move still further. But in the context of the paragraphs above quoted, the remedy suggested was to be applied not at the points where friction occurred in the daily intercourse of departmental transactions, but in the region of the supreme organ of control by strengthening the position of Finance on the Council, "in order that Finance may exercise its proper influence where the real control ultimately rests." The Committee welcomed the creation of a Financial Secretary; but they also desired to see a successor appointed to the Finance Member, and repeated their former recommendation that there should be a Member of Council for Contracts.

This last proposal will be considered presently. The replacement of the Finance Member, in addition to the new Financial Secretary, was not in fact adopted by the Minister. On the one hand, it would perhaps have been difficult to invest him with sufficient responsibility without impairing the position of the Financial Secretary. On the other hand, it was not desired to restore any office, like that of the earlier Assistant Financial Secretary, with authority over the head of the Contracts department. The Select Committee were here in agreement with the Minister; they wished to see a Member for Contracts on the Council, parallel to the Member for Finance. But against this solution there were other objections which will be stated below. The upshot was that the new Financial Secretary combined his Parliamentary functions with the position of Group Member for Finance and Contracts. It is certainly arguable that the interests of Finance were likely to be as strongly represented by one Member, with all the threads in his hands, as by three, whose spheres of responsibility must have limited one another.

The Minister's view was expressed in the House of Commons on

¹ Report I. (1918), paragraphs 8-12.

² See below, p. 109.

25 April, 1918. Referring to the appointment of Sir L. Worthington Evans as Financial Secretary, Mr. Churchill said :—

“ The foundation of the House of Commons is its control over finance, and it is absolutely right that there should be in each important spending Department a person of ministerial rank who is formally responsible, not only to the head of his Department, but to the House of Commons, for the proper conduct of finance—one of its own body, who could be questioned at any moment, who is accessible to Members, who can be brought to book here and questioned, and who is willing at any time to meet any group of Members in a Committee Room and discuss with them in full parliamentary confidence any matter which is causing difficulty or anxiety.

“ If a man is to undertake a function of that character, it is much better that he should have complete supervision of the sphere with which he is charged. I know my honourable friend (Colonel Collins) is very anxious to see several members of the Munitions Council responsible for finance, with the hopeful feeling, no doubt, that you would have greater economy in national finance if you had not one but several Chancellors of the Exchequer. But that is not a course which I have been able to adopt. I think it is far better that the House of Commons should hold my honourable friend responsible, and I am very glad they should do so. I gladly confide to him the supervision and control of munitions finance, without in any way shirking my own inalienable and general responsibility for all that is done in the Department.”¹

IV. The Proposal to Appoint a Member of Council for Contracts.

In their First Report (October, 1917) the Select Committee stated that, as they understood, the whole organisation of the Finance branch which dealt with questions of capital expenditure was under consideration. “ The financial control exercised over the moneys expended on the construction of National Factories is not sufficiently definite.”

They recommended

“ that an officer responsible for Contracts, as distinct from Accounts and pure Finance, should be a Member of the Council. His organisation should be placed in the closest possible contact with that which deals with grants or advances to contractors in respect of capital expenditure, a point which was more satisfactorily provided for under the previous regime than under the present.”²

The opinion of Council Members was generally unfavourable to this proposal. Sir H. Hambling described the present practice as follows. Financial authority was required for schemes for construction of National Factories. The contracts were made by the Contracts

¹ *Parliamentary Debates* (1918), *H. of C.*, CV. 1159.

² Report I. (1917), paragraphs 29, 31.

department, or by Sir John Hunter, as Director of Factory Construction, in consultation with Contracts. The plans or schemes of construction were passed by the Munitions Works Board. Machinery was selected by the Supply departments. The work was carried out under the supervision of the Munitions Works Board or of Sir John Hunter. Grants and advances for capital expenditure were actually negotiated and arranged by Contracts, subject to financial sanction.

Further, it had now been agreed that Treasury sanction was to be obtained for schemes over £50,000.¹

It was also pointed out that the functions of the Controller of Contracts were administrative—to secure the best terms and the proper preparation of contracts. His special experience would not bear on the large questions of policy which came before the Council. As head of a department, he would be consulted on matters affecting contracts, and any strong opinion he might wish to express would come before the Minister.

In the House of Commons, on 11 December, 1917, the following reasoned reply was given to this paragraph in the Report :—

“ It is submitted that there is no reason for acting on this recommendation of the Committee. Under the general administration of the Ministry the duties connected with contracts are divided between the departments of Finance, Supply, and Contracts. It would be difficult, without considerable and unnecessary duplication of staff, to separate the negotiation of contracts from the Supply department, which has technical information as to the nature of the supply, the capacity, and cost of work. And again, the Contract department could not deal with the purely financial side of contracts without reference to the Finance department. Under the present organisation the Member of Council for Finance is responsible also for Contracts, and therefore represents both in matters in which they are intimately connected. The various Supply departments are also represented through Members of Council responsible for their respective groups, and these deal with contracts from the point of view of supply.”

“ There would thus be no advantage from the point of view of financial control or of administrative finance that the Contract department should be separately represented upon the Council.”²

The Select Committee repeated their recommendation in their First Report for the Session 1918 (6 March, 1918). They argued as follows :—

“ The specific work of Contracts is not performed either by the Finance branch or by the Supply branches. That work consists of the fixing of prices whether for purchase or for sale. With this Finance has nothing to do. The Accounting Officer has no say whatever in the prices agreed by the Contracts

¹ See above, p. 6.

² *Parliamentary Debates* (1917), H. of C., C. 988.

branch. Even the Treasury . . . has never intervened in any way except in so far as considerations of currency have made it necessary in cases of purchase abroad, and even in those cases there is no indication that the price of the commodity affects their consideration except as a factor in the total amount. The great bulk of the Ministry's expenditure depends on Contracts. Even where the manufacture is in the Ministry's own hands, the cost of labour and supervision scarcely compares as a rule with that of the material. Thus price, which is the specific object of the Contracts branch, becomes a question of the greatest moment, and your Committee would again urge the adoption of their recommendation, in order that the vast importance of Contracts may receive proper consideration."¹

While this recommendation was not accepted by the Department, the end which it had in view, namely, to strengthen the position of Contracts, was, as will presently be seen, secured by other means.

V. The Relations of Supply, Contracts and Finance.

Besides recommending that Contracts should be independently represented on the Council, the Select Committee were anxious that the control of prices should be unreservedly vested in the Contracts department. They were not satisfied with the distribution of functions between Supply, Contracts, and Finance as laid down in the previous April.² The general effect had been to improve the position of Contracts, but the vital question of the responsibility for fixing prices had not been finally determined. The Committee commented on this uncertainty in the following terms :—

"In a matter of such primary importance as the power of the Contracts branch of settling prices for munitions of war, the question has recently been raised whether that branch or the Supply branch concerned should settle these prices, and has for some time been under the consideration of the Minister and the Munitions Council. No decision has yet been reached. That this question should have been raised in the Ministry at this stage of its history, when it has already spent more than a thousand millions of public money, is startling evidence of the position in which Finance is held."³

It is difficult to deny the force of the criticism conveyed in the last sentence of this paragraph. The observations of Members of Council merely reiterated the arguments with which the reader is already familiar.

Since no recommendation was made by the Committee, this question did not come within the scope of the answer given in the House on 11 December.

¹ Report I. (1918), paragraph 35.

² By General Procedure Minute 92. See above, p. 66.

³ Report I. (1917), paragraph 29.

It is necessary here to resume the history of this question at the point where it was dropped in the last chapter. At the sittings of the Commission on Organisation in May, 1917, the evidence given by Supply officers was practically unanimous in favour of the most complete form of decentralisation, the tendency of which would have been to increase, rather than diminish, the control of Supply over prices. This fact was one of the principal reasons which led Sir L. Worthington Evans to suggest to Dr. Addison on 2 July that the Financial Advisory Committee should report on the relations of Finance and Contracts.¹ It will be useful to resume here some of the evidence given before this Committee on the question of the control of prices.

Mr. Hanson, Director-General of Munitions Contracts, explained to the Committee how the difficulties of demarcation between the departments arose. The general theory was that Contracts placed a contract on the initiative of Supply and subject to the sanction of Finance. On the side of Supply, however, the line of demarcation had never been clear. In the case of some stores there was no Supply department, and Contracts took its place.² In other cases, where competition was good, Supply only indicated requirements and approved a list of firms; all the negotiation was done by Contracts. Sometimes Supply selected a particular firm, and played a more or less important part in the negotiations. Finally, extreme cases still occurred, where Supply carried through the negotiations and even agreed the price, Contracts merely recording the result. General Procedure Minute 92 had been intended to stop this practice, and measures were being taken to carry it out.

On the side of Finance, sanction was required not only for capital expenditure, but (contrary to the practice of the War Office and Admiralty) also for other contract terms, including prices. Since Finance could not always be consulted, the rough general rule (repeated in General Procedure Minute 92) had been made that contracts for £40,000 and over required sanction. The rule was unsatisfactory, because a contract of small value was often important as establishing a price. Further, many contracts were running orders, and so indeterminate in amount. Mr. Hanson hoped, in consultation with Mr. Mann, to arrive at a better criterion.

Whether financial sanction were obtained or not, Mr. Hanson held that the primary responsibility for terms rested with Contracts. This principle had not been observed in practice for several reasons. (1) Costs (often the determining factor in negotiations) were ascertained by Finance. (2) In negotiating, it was impossible to discuss terms with the other party, and then to refer all the terms to another department. Hence, where financial sanction was needed, the Finance representative took part in the negotiations. Mr. Lever and Mr. Mann had personally helped in negotiating some of the most important contracts; and sometimes the Minister had entrusted the negotiations

¹ Remit 19, 5 July, 1917.

² The origin of this arrangement has been explained above. See p. 18.

to Mr. Mann without consulting the Director of Contracts. (3) Many of the most important arrangements were not contracts for purchase or sale, but advances for extensions of plant under conditions for repayment or writing off. In these cases Finance was chiefly concerned.

In contrast with Mr. Hanson's position that the responsibility for prices should rest with Contracts, Mr. Barrow, Director of Munitions Accounts, argued that prices should be regulated by the Accounting Officer, who could not otherwise really discharge his duty of satisfying himself of the correctness and propriety of a transaction before making a payment. At the War Office and Admiralty, the Director of Contracts was answerable for prices; but this was justified by the fact that in peace all expenditure was regulated by Votes; the Accounting Officer allocated so much of a Vote to a particular purpose, and need not concern himself with the detail of prices paid. This was not so under the Vote of Credit system. No prescribed amount was voted by Parliament; the Treasury could only call for an explanation of excess over estimates. The only control over the volume of expenditure lay with the Accounting Officer. This was especially the case with the Ministry of Munitions, which supplied on the demand of another Department, and so had no real control over demand. The Accounting Officer could not exercise complete control unless he interfered at the source, and was active in regulating prices. This view had been adopted by Dr. Addison in the early days. He had told the Public Accounts Committee in 1916 that he held Mr. Lever responsible for prices.¹

Mr. Barrow, however, admitted that no one man could be both Accounting Officer and Director of Contracts. The Accounting Officer should be relieved of responsibility for the terms and conditions of contracts, and be allowed to accept as final any decision of prices or conditions made by his colleague, the Director of Contracts or the Assistant Financial Secretary.

Thus, from their several points of view, each of the three departments concerned in placing contracts claimed the right to control prices. The gist of the matter was that, whereas under peace conditions prices had been settled very simply by taking the lowest tender, the fixing of prices had now become dependent partly on a technical knowledge of stores and methods of manufacture such as only Supply officers possessed, and partly on cost investigations, which happened, for historical rather than logical reasons, to be carried out by a Finance section. In negotiation with contractors, the Contracts representative wielded neither of these two effective weapons, and was naturally reduced to a secondary rôle. He might take the responsibility for the price, but it was not he who really made it. On the other hand, the Finance representative lacked the technical knowledge, and Supply lacked any incentive to economy. The contractor, armed at all points, was likely to be more than a match for a Department represented by three champions with only one suit of armour divided between them.

¹ See above, p. 26.

Mr. Webster Jenkinson pointed out to the Financial Advisory Committee that there were two possible solutions. One was to strengthen Contracts by staffing it with men possessing an intimate knowledge of business finance and of the technical detail of stores, and transferring to it the Costs department. Contracts could then face the contractor on equal terms and really make the prices, subject to the criticism, in special cases, of a "Contracts Finance Department." Mr. Jenkinson considered, however, that this was not now a practicable solution. The other possibility was to divide the Contracts function between Supply and Finance. He proposed the creation of two new officers: a Controller of Supply, responsible to the Minister, and a Director-General of Contracts Finance, responsible to the Assistant Financial Secretary, having under him in each Supply department a Director responsible for the terms and prices of contracts. The Cost Investigation staff would be under this Director-General.

At the time of the change of Ministers, the Financial Advisory Committee was not ready to report. After the formation of the Munitions Council, the question was revived in an interchange of minutes between the Finance Member and Sir Arthur Duckham.

As a further step towards the strengthening of Contracts, Sir H. Hambling proposed that the costing branches should be transferred to that department. Upon this Sir A. Duckham observed¹ that the effect would be to bring negotiations with contractors into two hands, Contracts and Supply, since the Contracts officer would be the sole representative of the Finance group. He suggested that the arrangement by which Contracts and Supply officers worked together in Trench Warfare, Explosives, and the Aeronautical department, should be extended to all groups. Supply must "commence negotiations and carry them through"; Contracts must "be cognisant of and approve the prices and terms, and make the contract."

Sir H. Hambling agreed, except with the expressions quoted in the last sentence. He remarked that no strict definition of duties, as between Supply and Contracts, could be universally applied. The conditions of buying and the nature of the stores must vary the scope of the officials. Broadly, however, he thought that "the division is that the Supply department has the responsibility of fixing the quantity and description of the goods, and of finding the contractors willing to supply, while the Contracts department has the responsibility of price, terms of contract, and proper form of contract." It was true that the price must sometimes enter into the early discussions between Supply and the contractors, but Supply should be careful not to commit Contracts in any way, and to bring in Contracts as early as possible to take up the conduct of negotiations.

Sir A. Duckham urged that the technical knowledge possessed by Supply must be used in fixing prices: Supply must "concur" in the price finally settled. The Finance Member objected to the expression "concur." He wished to define the duties so as to leave Contracts

¹ Minute to Sir H. Hambling, 4 September, 1917. Munitions Council/78.

with undivided responsibility for economy. He finally proposed that the question at issue should be settled by asking the Minister to confirm the division of responsibility as defined in the following Minute¹:

"Supply.—The duty of Supply is to settle the quantities and descriptions of goods necessary to meet demands (advising Contracts thereof), and to find contractors. At this stage negotiations with contractors should be taken up by Contracts.

"Contracts.—Contracts is responsible for the price and other terms of contracts, for contracts being in proper form, and for accurate and prompt advice to the Supply and Accounts departments of the terms of all contracts.

"Contracts is the department of the Ministry charged with the duty of economy.

"Contracts has power to conclude all contracts, but in the following cases sanction must be obtained from Finance, which, in necessary cases, will obtain Treasury sanction:—

"(a) contracts involving capital expenditure, loans, or grants;

"(b) contracts involving payments in foreign currency.

"Finance.—Finance is responsible for financial sanction (as above). Finance is also to be consulted on important schemes, such as the erection of National Factories, control of industries, etc., and is responsible for the preparation or criticism of estimates when asked by the War Cabinet or Treasury.

"Accounts is responsible for enforcing receipts and authorising payments and for book-keeping relating to accounts between the Ministry and contractors, Allied Governments, local committees, and control accounts of National Factories."

The Secretary to the Ministry concurred with Sir H. Hambling's view of the disputed question. The only modification he suggested was in the direction of emphasising that the duty to consider economy rested on all departments, and not only on Contracts.²

Two days after the appearance of the Select Committee's First Report, the Minister appointed a Council Committee, under the chairmanship of Sir L. Worthington Evans,³ "to consider the limits of the responsibility of the Ministry in regard to control of expenditure, and the proper definition of functions, in this connection, as between the Supply department and the Finance department."

While this Committee was deliberating, a test case came up for decision in consequence of the appointment of Mr. Henriques, of the Explosives Supply department, to take charge, in addition, of the finance of aeronautical contracts. The matter was debated at a

¹ This Minute was the first draft of General Memorandum 61, ultimately issued in February, 1918. See below, p. 109. Munitions Council/96.

² Minute of 20 September, 1917. Munitions Council/96.

³ Council Committee No. 33. The remaining members were Sir James Stevenson, Sir Arthur Duckham, Sir H. Hambling, Sir Graham Greene, to whom Sir Ernest Moir was afterwards added.

meeting on 11 November, 1917, and, after further discussion with the Secretary, the Finance Member, and Sir A. Duckham, Sir L. Worthington Evans drafted a minute stating his decision. He considered that, for the present at any rate, the conditions of the aeroplane industry made it advisable that the organisation of Supply, Contracts, and Finance in the Aeronautical Supply department should follow the general lines hitherto adopted by the Explosives department. Under this arrangement, the Supply department was to be responsible for concluding all contracts, which would be signed by the head of that department or by some subordinate authorised by him.

This power was to be subject to the obligation to obtain financial sanction for contracts over a certain amount, and for all contracts involving capital expenditure, etc., or payments in foreign currency, or for the erection and management of National Factories. The Controller of Munitions Contracts was to be limited to responsibility for the form and general conditions of contracts, and for providing information based on cost investigations.

These draft instructions drew a protest from the Controller of Contracts. He regarded the proposal to empower Supply to negotiate all contracts as a great mistake. He recalled the recommendation of the Financial Advisory Committee that Contracts should be strengthened and made independent,¹ and the Finance Member's minute,² which had assigned to Contracts extended powers and responsibilities. Since then, Contracts had carried on their work on that basis, except in relation to the Explosives department, and even in that case the Finance Member had recently placed more responsibility on Contracts. He questioned whether Aeronautics was really analogous to Explosives, since it touched many other departments of the Ministry. He regarded it as essential that one Controller of Contracts should be responsible for all contracts, in order to keep methods and procedure, with regard, for instance, to Wages clauses, Break clauses, etc., on uniform lines.³

The Director-General of Aircraft Production (Sir W. Weir), on the other hand, desired to maintain the existing system. Hitherto the Contracts, Finance, and Accounts branches in his department had been local branches of the main corresponding departments at headquarters, "acting as general servants to Supply." He desired that Contracts and Supply should continue to collaborate in all negotiations, with a Finance representative (whose functions should be closely defined) available for consultation in exceptional cases.⁴

The issue was settled by an Interim Report of the Council Committee, dated 9 January, 1918, defining the functions and relations of Supply, Contracts, Finance, Accounts, and Stores. They stated that they had interrupted the consideration of their reference on account of proposals to set up a "Production department." The establishment

¹ F.A.C. Memorandum of 17 August, above, p. 95.

² Of September, 1917, above, p. 107.

³ Minute of C.M.C. to Sir L. W. Evans, 31 December, 1917. C.R./4385.

⁴ Estab. Cent. 51/22.

of such a department would modify the relations of Supply and Contracts by removing the chief objection to their amalgamation, namely, the temptation of Supply to obtain goods regardless of cost. Since, however, the question of a Production department was not likely to be decided at once, they thought it better to proceed meanwhile to a definition of functions.

They accordingly drew up a set of instructions, which were provisionally issued to the Aircraft Production department on 22 January.¹ These were afterwards incorporated, with some modification, in General Memorandum No. 61, dated 22 February, 1918. The following are the paragraphs relevant to this subject :—

Supply.—It is the duty of the Supply department to settle the descriptions of goods necessary to meet approved requirements, and to advise the representatives of the Contracts department what quantities should be ordered from various suitable contractors. In the case of orders proposed to be placed abroad, the Supply department should at an early stage get into touch with the Finance and Transport departments with a view to determining whether credit will be available and shipping can be provided. When that stage has been passed, negotiations with the contractors shall be taken up by the representatives of the Contracts department attached to the Supply department in closest consultation and with the advice of the Supply department and its technical officers.

In the case, however, of a Supply requiring special technical knowledge, the Controller of Munitions Contracts may delegate to a Supply Officer the right to negotiate the contract on his behalf subject to his final approval as to terms and price.

In the case of materials from abroad, the Supply department must satisfy Contracts that their proposals are in accordance with the general allocation of tonnage and credit referred to above.

Contracts.—The Contracts department is responsible for the prices and for terms of contracts, and for the contracts being in proper form, and for accurate and prompt advice to the Supply and Accounts departments of the terms of all contracts.

In the event of differences arising between the Supply and Contracts departments, reference will be made to Council Members of the Finance and Supply Groups for decision. Where, however, the Contracts department are not able to certify that financial assistance is not likely to be required in order to enable the contractor to carry out the contract, the Finance department should be brought into the negotiation immediately.

The Contracts department is a department of the Ministry which is especially charged with the duty of economy. It has power to conclude all home contracts. Those in Canada

¹ Munitions Council/78.

are concluded by the Imperial Munitions Board, and those in the United States of America by the British Mission in the U.S.A., in accordance with instructions from the American department of the Ministry.

In the following cases sanction must be obtained from the Finance department, which, in necessary cases, will obtain Treasury sanction :—

(a) Contracts for which financial assistance is likely to be required, or which involve capital expenditure, loans or grants, or payments in advance of deliveries.

(b) Contracts which involve payments in foreign currency.

(c) Contracts for the erection and management of National Factories.

The Contracts department will be responsible for compiling and keeping records of the financial standing of firms contracting or seeking contracts, the contracts placed with them, and any advances, etc., made, and the information so recorded is to be placed at the service of the Finance department in every case at any time.

Finance.—The Finance department is responsible for financial sanction in the before-mentioned classes of contract, obtaining Treasury sanction when necessary, and is responsible for the preparation and criticism of estimates.

Accounts.—The Accounts department is responsible for enforcing receipts and authorising payment, and book-keeping relating to accounts between the Ministry and contractors, Allied Governments, local Committees and control accounts in National Factories.

It remains to note the points of difference, in so far as the relations of Supply, Contracts, and Finance are concerned, between this Memorandum and General Procedure Minute 92, promulgated in the preceding April.¹

(1) *Supply.*—The earlier Minute directed that each Supply department should co-operate with the Contracts representative attached to it in all negotiations, and that the Contracts representative should adjust the contract when the negotiations were completed.

The Memorandum recognised that the interests represented by Supply and Contracts were separate, and indeed conflicting. It reserved to Contracts the final word as to terms and price in all cases, and the conduct of negotiation in the final stages, except in cases where this function was delegated by Contracts to Supply.

(2) *Contracts.*—The position of Contracts was further strengthened in the Memorandum by the declaration of its responsibility “for the prices and for terms of contracts.” Under the earlier Minute, Contracts

¹ Quoted above, p. 66.

had been responsible only for "the terms of all arrangements for buying or selling on behalf of the Ministry," a limitation which excluded construction contracts.

(3) *Finance*.—Still more important was the liberation of Contracts, consequent upon the abolition of the office of Assistant Financial Secretary, from the overriding responsibility of Finance for "the terms of all important contracts." The class of contracts requiring financial sanction no longer included all undertakings involving an expenditure of £40,000 and upwards, and all contracts on a nett cost basis. The general effect was to restore the position of Contracts, which had been lowered under the regime instituted by Dr. Addison, to an equality with Supply and Finance.

The Select Committee on National Expenditure returned to this subject in their Report of 6 March, 1918. General Memorandum 61 was issued when the Report was already in proof. The Committee observed that its terms did not appear to them to be sufficiently definite, and they recommended

"that it be definitely laid down that the settlement of contract prices is the duty of the Contracts branch."¹

They expressed the hope that, when Contracts were given the "sole responsibility for fixing prices," the periodical conflict between that department and Supply would not recur. They stated with some emphasis their sense of the impropriety of Supply officers being concerned in the settlement of prices.

"It is not desirable that the settlement of prices involving the payment of enormous sums by the State to private firms should be left to the officers concerned with Supply, just as it is undesirable that they should be allowed to arrange grants of capital expenditure or to construct National Factories. Production is still the main purpose of the Supply branch, and the man who is forcing on production is the last man to whom the settlement of price should be entrusted. Not only is he anxious to tempt the manufacturers to produce, but he is also eager to prevent their services from being engaged by another department. Moreover, in a few cases the Heads of the departments, and in most cases some of the responsible officers of the department, are drawn from the firms whose industries they control. Even where this is not the case, it is not improbable that officers of the departments will, through knowledge gained or connections formed in their official capacity, find their way after the War into firms with whose industries they have dealt. It is surprising to your Committee that these considerations should not have been so obvious as to deter all the departments—as it has certainly prevented some—from ever attempting to settle prices. That they have done so repeatedly is regrettable, but that a tendency should be established as the practice is, in the opinion of your Committee, wrong in principle."

¹ Report I. (1918), paragraphs 36–39, and Recommendation (12).

Sir L. Worthington Evans referred to the Committee's recommendation in his speech in the House of Commons on 25 April, 1918.¹ Colonel Collins interposed with the question: "Is there any dual responsibility between Supply and Contracts on the contracts question? Is the Contract officer solely responsible for price, or has the Supply officer any power over price?" Sir L. Worthington Evans replied:—

"The Contract officer is solely responsible for price. The Supply officer very frequently is a technical officer, and the Contract officer is entitled to obtain from the technical Supply officer all the advice and assistance that he can get; but it is upon the Contract officer that the duty is placed definitely of being responsible for price."

VI. Financial Control of Programmes of Demand.

While the Select Committee were seeking to fix responsibility for prices upon the Contracts department, at the other end of the chain linking demand with supply they were anxious to invest Finance with a control over programmes. This brings to the front the other aspect of financial control, of which little has hitherto been said, because little had been done. Behind the question, which has hitherto been in the foreground, what department should decide how much should be paid on a contract for this or that article, there was always the still more difficult problem, what authority could limit the volume of funds available for expenditure on anything.

In speaking of the financial control or criticism of programmes, it is necessary to distinguish the programme of demands and the programme of supply. The Ministry of Munitions was in the peculiar position of fulfilling demands formulated by other Departments on grounds of military strategy with which it was not acquainted. The War Office called for, say, 500 tanks, or the Air Service for 1,000 aeroplanes. The Ministry had to place the contracts and pass the bills for payment. It might be in a position to urge a reduction of the demand on the ground that there was not enough material, or labour, or manufacturing capacity available—to plead, in fact, that a programme of supply could not be framed to meet the programme of demand. But it was never in a position to refuse a demand on the plea that funds were not forthcoming. Only the Treasury could take that attitude, and in normal times the procedure of estimates would provide a proper occasion. Since, however, under war conditions this procedure had gone by the board, and Treasury control had become almost entirely inoperative, it became a very difficult problem to discover any authority that could limit or even seriously consider the total volume of munitions expenditure before it was incurred. This problem was never solved, and, so long as demand rests with one Department and supply and payment with another, it does not appear to be even theoretically soluble.

¹ *Parliamentary Debates* (1918), *H. of C.*, CV. 1192.

In the first year of the Ministry's operations, no financial stringency was felt. The Minister's efforts were at first directed to inducing the War Office to budget on a large enough scale and far enough ahead. The War Office aimed at keeping its demands within moderate limits ; but the Ministry had to consider what orders must be placed, so as to develop capacity a year or more in advance. On the artillery programme of 1915, the Minister doubled the War Office demand, in order that, by receiving very large contracts, firms might be encouraged to lay down capacity liberally and rapidly to increase their output. The 1916 demand from Headquarters in France absorbed all these additional orders. Thus, in the first phase the Ministry aimed at comprehensive and long-dated programmes.

The attitude changed as limitations of labour and materials came within sight. In 1917, though the Ministry had no right to criticise programmes from the military standpoint, except in so far as an alternative weapon or design could be offered to effect an equivalent result, it had to look at programmes in the light of the available supply of labour and materials, and to ask for modifications if these fell short. Discussions were held with the War Office on the two questions of the balance of requirements and the possibility of supply. Thus, in considering the 1917 Gun programme, the Ministry raised the question of the rate at which ammunition could be used without wearing out guns faster than they could be replaced, and discussed the balance of guns with spare parts, ammunition, explosives, and filling. In all this, the question of funds did not arise, though the criticisms were initiated by the Finance department with a view to economy

The correspondence with the Treasury in 1915 makes no mention of any duty to criticise demands. The question was first raised by the Treasury in October, 1916, when they called the attention of the Minister to the fact that the expenditure of his Department for the six months ending 30 September, 1916, was considerably in excess of the estimates furnished in the previous January and March. They pointed out that a further large excess of munitions expenditure would seriously burden the resources of the country, and requested the Minister to review the financial position and to furnish revised estimates.¹

In reply,² the Minister wrote that he had always kept in view the paramount need of economy in the production of munitions, and recognised that full responsibility for such economy rested with his Department.

" He gathers, however, from your letter that their Lordships attribute to him also a certain measure of responsibility for the general increase of expenditure on munitions. The Minister is not in a position to accept any such responsibility. He has from the first assumed that it is his duty to make every possible effort to meet the demands notified to him by the Admiralty

¹ No. 27421/16, 17 October, 1916.

² C.R.V./Gen./095, 30 October, 1916.

or the Secretary of State for War (or by any of the Allied Governments, subject to the prior financial sanction of the Treasury), and he holds that the Army Council, and in a lesser degree the Admiralty, are alone responsible for such increases of expenditure, due to increased demands, as fall on the Ministry's Vote. He trusts that, in further consideration, their Lordships will find themselves in agreement with him on this important question of principle."

In January, 1917, Mr. Alexander Duckham wrote to the Minister (Dr. Addison) that his department (D.D.G.E.) had sometimes pressed the War Office to reconsider demands, with the result that considerable savings had been effected. Thus, the demand for small arms ammunition had been reduced from 300 to 200 millions a month, and later to 130 millions. This meant the saving of about £14,000,000 for 1917, and incidentally the transfer of Russian orders to England with a saving of £300,000 a month. The demand for rifles had been lowered from 3,400,000 to 2,000,000, and then to 1,065,000—a saving of £15,000,000 a year. The weekly demand for Lewis gun magazines had been reduced from 60,000 to 25,000—a saving of £1,000,000 a year. Thus the total saving for the year on these items was over £30,000,000. A scrutiny of less important items might result in very large economies. It was presumably for the War Office to review its demands without pressure from the Ministry, but Mr. Duckham suggested that the country would gain, if some qualified officer were attached to the Minister's staff to go quietly into these questions without causing friction with the War Office.

The appointment of such an officer was discussed by the Ministry Finance Board in February, 1917,¹ but, although Mr. Duckham repeated his suggestion more than once,² it was felt that the informal intervention of even the most tactful official might be resented by the War Office.

Meanwhile, after some unofficial consultation with the Director-General of Munitions Finance, the Treasury framed a reply to the Minister's letter of 30 October, 1916, in terms which were designed to strengthen the Finance branch in dealing with other departments of the Ministry.³ The Treasury noted Dr. Addison's statement that he regarded the function of his Department as confined to the supply of Army demands.

"But My Lords trust that Dr. Addison will take any opportunity that presents itself of criticising the quantities of military supplies ordered by the War Office, in the light of the available statistical information, with a view to effecting all possible economies.

"A further point to which My Lords desire to direct the attention of the Minister is the co-ordination of orders, so that the quantity of shell ordered should bear a due relation to the

¹ Minutes of 20 February, 1917.

² Copy of these letters in C.R./4390.

³ Minutes of Ministry Finance Board, 20 March, 1917.

number of guns ordered and their probable life ; and similarly the preservation of relativity between the tonnage of supplies ordered and the amount of freight available in present circumstances."¹

The Ministry replied as follows² :—

“ Although Dr. Addison adheres to the view that it is his primary duty to meet the demands made upon him by the War Office and Admiralty, while the control of the nature and extent of the demands rests with these Departments, yet he recognises that the information which is specially available to him in regard to labour, raw materials, and transportation, enables him at times to undertake a critical examination of the demands from these points of view and to help in the paramount task of co-ordination.”

The Minister added that considerable savings had been effected by acting upon suggestions made by the Committee on Economy in Metals. Further, the powers and duties of the Director of Requirements and Statistics had been extended, and it was proposed to bring his department into closer co-operation with the Finance department.

The last statement appears to have given rise to some misunderstanding. It could not have been Dr. Addison's intention to invest the Director of Requirements with any financial responsibility, nor was this ever done. With a view to establishing co-operation, a Finance officer (Mr. Barrow) was appointed to attend the Statistical Conference. This, however, proved to be a side-track, and no substantial result was obtained.

In giving evidence before the Financial Advisory Committee on 19 July, 1917,³ Mr. Dannreuther and Mr. Barrow expressed the opinion that there was not a sufficient financial check on programmes, and that Finance should be consulted in the first place on the provision of the money that was to be spent. The Director of Requirements and Statistics received the War Office requirements, and passed them on to Supply. It was thought that he might go further and question the needs.

After the change of Ministers in July, 1917, Mr. Mann wrote on 14 August a note bearing on the financial scrutiny of demands and programmes, which indicated that in the War Office a more effective criticism was applied to comparatively minor stores than was applied by the Ministry to the more important supplies demanded by the War Office. Mr. Mann suggested that, owing to the stringency, not only of labour, material, and transport, but of money, responsibility for criticising demands should be definitely assumed either by the War Office or by the Ministry. At present there was a risk that the divorce between the functions of demand and supply might weaken the responsibility for criticism. Under the recent reorganisation of the

¹ Letter from Treasury, No. 7076/17, 16 March, 1917.

² M.F./Gen./367 (D.G.M.F.), 30 March, 1917.

³ Remit 19. See above.

War Office, the Surveyor-General of Supplies (Mr. Andrew Weir) co-ordinated demand and supply, and might review demands in relation to stocks, rate of consumption, transport facilities, patterns, specifications, etc. He worked through eight Committees, each composed of one Demand officer, one Supply officer, and a commercial man as a neutral chairman with only advisory power. Failing unanimity, any member might refer a point to his superior, up to Mr. Weir himself. These Committees did not negotiate contracts. This duty was left to the Contracts department. Mr. Mann suggested that the scrutiny of military demands on the Ministry might follow similar lines. At present there was in the War Office no criticism, financial or otherwise, of the requisitions of the Military branches which were presented to the Ministry.

When the general scheme of organisation under the Munitions Council had been settled, Sir H. Hambling wrote the Minute¹ above quoted, defining, as he understood it, the division of financial responsibility between the departments.

Under the head of Programmes, he laid it down that the Ministry had no responsibility to consider, or to report to the Treasury, whether the State could afford to meet the demands of the Army Council. It was, however, the duty of Finance to be able to make estimates, or criticise estimates, if requested to do so by the War Cabinet or the Treasury. When demands had been received by the Director of Requirements, the Ministry had no right to question whether the articles or quantities were necessary, unless, on the face of it, the demands had not allowed for existing stocks or were not balanced with other demands. In that case the Ministry should enquire if the demands had been made with that knowledge.

The Secretary to the Ministry agreed in the main with this doctrine, though he pointed out that the Minister, as such, had a right to express to the War Cabinet his view of the demands in relation to the national resources, and also to call for consideration of the demands of one service in relation to those of others. The practice of drawing up munitions programmes in advance (as had been done in the previous year and was now being done) was invaluable as bringing to a head the requirements of the various services which would need to be satisfied from the world stock of raw material, and as providing a check upon inessential or ill-considered demands.

In October, 1917, the Director of Requirements and Statistics informed the Select Committee on National Expenditure that his department had no direct relation with Finance. The question of economy of funds hardly arose. His information went to Finance in the form of the Printed Report, and Finance was represented on the Statistical Conference.²

¹ Munitions Council/96. See above, p. 107.

² The evidence has not yet been printed. The above is taken from typewritten notes of Mr. Layton's evidence on 2 October, 1917.

The Select Committee reported that "Finance is in no way represented on the Committee of the Council appointed for the consideration of the programme of demands before the Ministry,¹ and that orders outside the programme were communicated directly to the Supply department without any consultation with Finance or any immediate notification to them. They recommended that

"the Finance Member, in addition to his present duties, should, directly or through the heads of his branches, be responsible for the financial consideration of programmes."²

In their comments on this report, the Members of Council generally agreed that the Finance department could not exercise control over the programme before it reached the Ministry, nor yet after it had been received, until the technical problems of fulfilment had been settled. The Finance Member's view was that Finance became interested when the stage of placing contracts had been reached. The Secretary pointed out that the Programme Committee had been set up as a body for considering practical requirements, but it did also consider economy. He thought that financial criticism from an expert acquainted with the practical details would be useful, but not so appropriate as after the proposals had crystallised. The Minister had arranged that the Finance Member should be added to the Programme Committee as soon as financial questions arose.

In General Memorandum 61 (22 February, 1918) the paragraph defining the duties of the Director of Requirements and Statistics made no reference to any consultation with Finance. It ran as follows :—

"*Requirements.* D.M.R.S. is responsible for considering the general demands received from the War Office and other Government departments, as regards—

- (a) balance in connection with related stores ;
- (b) the Ministry and War Office stocks ;
- (c) current production ;

and for passing on to the Supply departments requirements which it is necessary for Supply departments to fulfil.

"D.M.R.S. will also be responsible for drawing up, in consultation with the Materials department, the general programme of production at home, and also of purchases from overseas of the materials necessary to meet these requirements, in a form suitable for consideration by the proper authorities in connection with the allocation of tonnage or credit among the various Government Departments."

¹ The Council Committee (C.C.1) on the 1918 Programme, which first met on 29 August, 1917, and produced its final report on 3 January, 1918, consisted of the Minister, Sir L. Worthington Evans, Members of Council for six Supply Groups, and Mr. W. T. Layton (D.M.R.S.). It worked through 18 sub-committees, including the "Co-ordinating Committee," which brought together the results reached by the sub-committees.

² Report I. (1917), paragraphs 29, 31.

The Select Committee on National Expenditure, in its First Report of the Session 1918, called attention to the correspondence between the Treasury and the Ministry on the question of financial responsibility for increased demands. They considered that the absence of the automatic check normally provided by closed estimates made it all the more necessary that strict financial control should be exercised at every stage. The Finance department of the War Office did not receive the demands before they were issued to the Ministry; and the Ministry was the natural centre for reviewing the demands in relation to stocks, available means of production, and demands from other sources.

In spite of Dr. Addison's promise, in his letter of 30 March, 1917, that the Director of Requirements and the Finance department should be brought into closer co-operation, it did not appear that there was any definite procedure for consultation. Programmes, however, were considered by the Ministry, and reductions had been effected in view of stocks, interrelated orders, and factors limiting the means of supply.

The increasing stringency of these limitations had led to more systematic review of programmes by a sub-committee of the Council. Finance was not represented on this body, because (it was argued) no representation was needed so long as money was not the limiting factor. The Committee acknowledged that the financial interest was not concerned in so far as reductions were determined by limitations of material, machines, or transport. But questions of stocks, expenditure, or balancing ought to arise before any reductions were required on other grounds, and here the purely critical scrutiny of a Financial Member would be of great service.

The Committee recommended

“that an officer responsible for Finance be associated with the Programme Committee in the consideration of the demands made on the Ministry by the War Office, the Air Council, the Admiralty, and the Allies.”¹

On 18 March, a special meeting of the Financial Secretary's Standing Committee was called to discuss the Report. It was agreed that no one Finance officer could usefully serve on the Co-ordinating Committee, to which the Minister referred the programme of demands. The Finance officers could only furnish information on specific points. For a full consideration of the financial aspect, Contracts, Finance, and Accounts would all have to be represented, and this was felt to be impossible, though the position might be altered, if finance should ever become a limiting factor, instead of transport and materials, as at present. At the stage when the Minister was considering his decision on the reports of the Co-ordinating Committee, the Secretariat ought to call his attention to questions affecting other departments, whose views the Committee had not considered.

¹ Report I. (1918), paragraphs 13-17, and Recommendation (2).

In his speech in the House of Commons on 25 April, Sir L. Worthington Evans replied to a question put by Mr. Samuel: "Will an officer associated with finance be placed on the Programme Committee, so as to review those demands at the initial stages?"

"The answer is, No, for this reason: Finance is not a limiting factor. Long before finance becomes a limiting factor there are other limiting factors, such as transport, labour and materials, and the statistical officer who examines those programmes can say 'yea' or 'nay,' whether he can provide this particular demand limited only either by labour, raw material or transport. It is not necessary at that stage to have a finance examination; but when that general requirement is broken up into the specific programmes of each Supply department, then the Finance and Contracts departments are going to examine each one of those specific programmes, for then all the other limiting factors have been eliminated, and we have come down to the one thing: Can we fulfil that programme? If we can, can we do it economically? It is then examined to see that it is done in the most economical fashion, and the allocation between the factories belonging to the Ministry and outside contractors will be made at that stage."¹

Thus the conclusion reached was that financial scrutiny, while it could not be applied to programmes of demand, could and should be applied to programmes of supply.

VII. Financial Control of Programmes of Supply.

The Select Committee did not distinguish so clearly as the officials who were familiar with Ministry procedure, between the programme of demands and the programme of supply. They were naturally troubled at the dangerous gap left in the normal machinery for financial control by the disappearance of Treasury criticism of estimates and the consequent lapse of Parliamentary control over expenditure before it was incurred. Seeking for a means to fill this gap, they wished to push back financial criticism within the Ministry to the earliest possible stage. The Accounting Officer and the Finance department generally would, no doubt, have welcomed any expedient that could have promised to be effective in operation. But there appears to be no answer to the objection that a financial critic who cannot at any point say "thus far and no further," is not in a position to check at the source the outflow of money from the Exchequer. He could hold his ground only if he had the Treasury behind him, definitely refusing to foot the bill for more than a certain amount. This the Treasury could never do; and there was the further complication, peculiar to the Ministry, that demands were, after all, framed by another Department, which could be overridden only by the War Cabinet. Since the volume of expenditure was really determined

¹ *Parliamentary Debates* (1918), H. of C., CV. 1192.

by the volume of demands, the Accounting Officer held that the correct procedure would have been that the Ministry, like the Ordnance Factories, should recover from other Departments payments for what it supplied to them. Those other Departments would then have to justify their demands to their own Accounting Officers and take the blame for any extravagance that might be brought home to them.¹ In the inter-departmental discussions which took place a year later concerning the establishment of a Ministry of Supply, the Treasury adopted this view.² While the War continued, however, this solution of the problem would have entailed too great a change. It remained to make financial criticism within the Ministry as effective as possible. It was plain to the chiefs of the Department that internal financial criticism must come into play at a later stage, when the programme formulated by the Ministry itself—the programme of supply—took shape.

In this connection, the Select Committee fixed upon the point that Finance was "not consulted in any question of the allocation of orders and material between National (Government-owned) Factories and firms working under contract. Finance has no knowledge of the potential output of these National Factories, and no power of ascertaining whether these Factories are wisely utilised or not, other than by means of their own cost returns, which are necessarily insufficient for this purpose." The Committee wished to include "the financial aspect of National Factories and allocation of orders" among the duties of the Finance Member.³

Members of Council expressed the opinion that the Committee in this part of their Report did not sufficiently distinguish between the technical side of supply and financial considerations. It was impossible for Finance to ascertain whether the National Factories were being used to the full extent of their capacity, without keeping a staff of engineers and costing clerks to duplicate the work already done by Supply. It was stated that there was, in fact, no unused margin of capacity either in the Factories or in the private firms. Orders were allocated to cover demands, and material to cover orders; where was the opportunity for financial control? On the other hand, it was recalled that the Financial Advisory Committee had gone into the question of output and costs at the Projectile Factories, and as a consequence Supply had arranged for efficiency returns to supplement the cost returns obtained by Finance.⁴ Using these cost returns, Finance had intimated to Supply that the management of certain

¹ See Mr. Dannreuther's evidence before the Select Committee on 6 January, 1918, Report VII., p. 69.

² Letter from the War Office to the Ministry of Munitions, 31 January, 1919 (1/Gen. No./2285 C1): "In the view of the Army Council the general principle should be that the Secretary of State for War should obtain from Parliament on Army estimates the funds required to be spent on the Supply services of the Army, and that the money so obtained should be spent through the Ministry of Supply, and it is understood that this has already been agreed by the Treasury."

³ Report I. (1917), paragraphs 29, 31.

⁴ M./Gen./124.

factories must be improved, or the factories closed. The National Shell Factory at Ebbw Vale had been shut down after discussion between Finance and the Director of Area Organisation. With regard to potential output, Finance had full information in the Weekly Report under the head of "Promises per week."

Although, owing to the constitution of the Council, these expressions of opinion mostly came from the principal Supply officers, they were endorsed by the Finance Member, and other Finance officers recognised that the allocation of orders could not be treated as a purely financial question, since such factors as the reserve capacity available for emergency must be considered, and when it came, for instance, to distributing orders between National Filling Factories and Filling contractors, it was necessary to give the latter sufficient orders to keep their works going. The question of principle, however, was not dismissed from consideration. In December, 1917, the Minister decided that, in allocating orders to National Factories and commercial contractors,

"(1) the basis of priority should be efficiency in cost of production ;

(2) other things being equal, National should have preference over commercial factories ;

(3) As we are organising for war, the safeguarding commercial interests after the War must take a subsidiary place in governing decisions as to distribution of orders."¹

The Select Committee reverted to this subject in their Report of 6 March, 1918. They urged the point that, when questions of the capacity for production arose, each Supply member was solely interested in securing the largest share. The Committee considered that the scrutiny of a Finance representative was needed to guard against over-production and consequent waste of material and labour.

They observed that, in appointing the Programme Sub-committee, the Minister had laid down that the Finance and Labour departments should be consulted at a later stage. But they could not ascertain what was the purpose of the consultation, or when it was supposed to occur. Demands were still communicated directly to Supply departments, which considered ways of meeting them, and only then applied for the sanction of the Finance branches for items of expenditure submitted piecemeal. The Committee considered that, at some definite stage, all the means of meeting the programme should be reviewed by Finance, Requirements, and Supply.

The Committee recalled that in their previous Report they had given, as an example of the necessity of consulting Finance at this stage, the allocation of orders and materials as between National Factories and private firms. They now elaborated this point as follows :—

"The National Factories are works erected by the Government, managed by salaried officials, and working on public

¹ Munitions Contracts Board, Minute 148, 14 December, 1917.

funds, which are almost without exception specially designed for the production of a particular form of munition in large quantities. The effect of massed production is, or should be, a reduction in cost, and where the Factories have been allowed to reach their maximum output expectations have not, on the whole, been disappointed. Owing to shortages of material, alterations in demand, and possibly over-supply, the question has arisen recently, and will arise more often in the future, whether discontinuance or change of manufacture shall take place in private contractors' works or in the Ministry's own. This is pre-eminently a question on which the Financial branches should be consulted, and indeed, unless there are some special considerations which are not *prima facie* apparent, it is a question in which claims of economy might for once be allowed to be decisive. Hitherto, on the contrary, the question of the use of National Factories appears to have been left entirely to the discretion of the Supply department responsible for their management and interested in their product. Certain Factories erected for the manufacture of shell, and each of them highly successful, so far as can be judged from the output and the cost of production, were converted by the Controller, who at that time had both guns and shells within his jurisdiction, from the latter to the former. Others of these Factories, notwithstanding that one of their chief purposes was the advantage of concentrated uniform production on a big scale, were partly turned over from the manufacture of large shell, for which they were designed, to that of small shell, while at the same time, one of them, and the least successful, to judge from results, was increased for the manufacture of big shell in order partly to compensate for the loss through the conversion of others to guns. This was done at the apparently uncontrolled discretion of the Supply officer. Financial sanction was only asked with respect to the expenditure of capital on new machines, alterations of buildings, etc. The questions of the financial effect of the loss of output, the possibility of alternative methods of meeting the modified requirement, whether by building new Factories, discontinuing contracts or transferring contractors to other work, were never considered in consultation with the Contracts and Finance branches."

Finance should also be kept informed of modifications of programme and the degree to which it was being met, particularly as a check on over-supply. It was possible that the secondary position assigned to financial control might account for the neglect of proper records of output.¹

This is not the place to enter into the policy which directed the use of National Factories, and their conversion from one to another type of manufacture. With regard to the allocation of orders, the Secretary to the Ministry strongly expressed the opinion that the

¹ Report I. (1918), paragraphs 18-22.

decision must rest with the executive department, and could not be determined by Finance. Nothing was more fatal to efficiency than a confusion of financial and administrative functions. If Finance were to attempt to do what it could not do, Supply would wash its hands of responsibility.

It was, however, decided in March that the programmes drawn up by Supply departments should be reviewed by Contracts and Finance before the stage at which negotiations for the placing of particular contracts were opened by the Contracts and Supply officers. The Director of Requirements was instructed to send to Finance and Contracts his statement of requirements at the same time as he sent it to Supply. The Finance and Contracts departments were then to examine the whole programme of supply, and take part in the allocation of orders as between National Factories and contractors, and as between one contractor and another. Thus, while it was considered unwise that Finance should take over the function, now exercised by the Director of Requirements, of criticising the demands put forward by the Admiralty or the War Office, financial criticism was to come in at an earlier stage than hitherto. Instead of being confined to the terms of particular contracts after negotiations had been begun, it was to be brought to bear on the supply programmes as a whole. A new Finance branch (D.F. 3) was formed, whose sole duties were to consist in the criticism of programmes and the preparation of estimates.

On 18 March the Financial Secretary wrote to the Minister that this examination of programmes should ensure a proper allocation of orders on grounds of cheapness and efficiency, and a due consideration of the state of contractors' accounts with the Ministry and of the effect, on any capital advances made by the Ministry, of cutting off or continuing any particular contract. He proposed that it should be undertaken by a Council Committee, with the Financial Secretary or his representative in the chair, with Council Members R (Requirements) and L (Labour), the Controller of the Engineering department so far as the Ordnance groups were concerned, and the Council Member representing the Supply programme under consideration. The Minister referred this proposal to the Council.

After discussion at the Council and the Financial Secretary's Standing Committee, the respective duties of Requirements, Supply, Contracts, and Finance were defined in General Memorandum 71 (4 April, 1918) as follows :—

WORK AT NATIONAL FACTORIES.

(Supplement to General Memorandum No. 61.)

1. D.M.R.S. shall send to the Finance department a duplicate of statements of requirements, whether in the form of new or amended programmes or "spot" demands likely to involve a considerable additional expenditure, at the same time he passes them to the Supply departments.

2. The Supply department shall submit its programme for meeting these requirements to the Finance and Contracts

departments, and these will be examined by them in conjunction with D.M.R.S. in accordance with arrangements to be made between the four departments. "Spot" demands not so admitted to be reported at the end of each month to form the amended current programme.

3. The Supply departments in formulating their programme for meeting requirements will bear in mind the principle of utilising as far as possible National Factories and other factories designed for production of a particular commodity on a larger scale.

4. In the event of any difference arising which may affect the Finance, Contracts or Supply departments, the matter will be referred by the department chiefly concerned to its Member of Council, who, if necessary, will submit the matter to the Co-ordinating Committee of the Council. For this purpose the Financial Secretary will be added as Chairman to the Committee, and also the Member of Council representing the Supply department concerned.

5. The Director of Factory Audit and Factory Costs will be responsible for furnishing monthly to the Contracts department as well as to the Supply departments a statement relating to National Factories on the following lines:—

A.—For each National Factory working:—

- (a) Name of Factory ;
- (b) Cost of Factory ;
- (c) Maximum capacity for which designed or re-designed ;
- (d) Current output ;
- (e) Most recent cost per unit of output.

B.—For each National Factory under construction (in conjunction with the Munitions Works Board where necessary):—

- (a) Name of Factory ;
- (b) Approximate cost of Factory ;
- (c) Maximum capacity for which designed ;
- (d) State of progress.

6. It will be the duty of the Contracts department to make early notification to the Accounts department in any case in which, owing to curtailment of programmes or other causes, it may be necessary to reduce substantially supplies under any contract or to terminate a contract, in order that information as to the state of the contractor's accounts may be forthcoming, and no steps shall be taken to reduce supplies or terminate contracts until matters arising from a survey of accounts have been considered.

On 8 May, it was agreed by the Financial Secretary's Standing Committee that a sub-committee, with Sir L. Worthington Evans in the chair, should draw up a scheme of Programme Committees.

About the same time, the issue of another Office Order consolidating General Memoranda 61 and 71 was taken into consideration. Its publication, however, was delayed for several months,¹ and the report on the constitution of the Programme Committees was consequently held up. Finally, the Consolidated Memorandum was approved by the Finance Committee on 16 October, 1918, and, at the same time, it was agreed that Mr. Guy should represent Finance on the Co-ordinating Committee. It was further decided that on the sub-committees for the detailed consideration of programmes the following should be represented :—

- The Supply Controller concerned, as Chairman.
- The Controller of Munitions Contracts.
- The Controller of Contracts Finance.
- The Controller of Departmental Finance.
- The Controller of Factory Audit and Costs.
- The Controller of Aeronautical Contracts (for aircraft).
- The Controller of Explosives Finance and Contracts (for explosives).

Mr. Dannreuther inquired whether Finance could be represented on the Programme Committees before the programmes were submitted to the Co-ordinating Committee. It was agreed, however, that, as Sir L. Worthington Evans had said, Finance could not take any responsibility at that stage. But it was stated that the Director of Requirements would welcome any criticism and help from Mr. Dannreuther.

VIII. The Status of the Accounts Department.

The last recommendation made by the Select Committee in their Report of 24 October, 1917, referred to the need of improving the status of the Accounts department :

“ that the officers directly charged with the control of the Accounts of the Ministry be placed in close relation to the Finance Member of Council, and on a footing commensurate with the importance of their work. Their staff should also be strengthened in order that they may settle up all arrears, and thus prevent loss through further delay, and in order that they may secure prompt and accurate payment of current bills.”

In a memorandum to the Finance Member, dated 23 October, Mr. Guy and Mr. Garnsey had emphasised the importance of the principle that “ Accounts should be scrupulously segregated from Finance.” They held that the essence of sound accounting in a Government Office is that the Accounting department which draws on the cashier should be dissociated from Supply, Contracts, Finance, and Stores, whose several or joint authority is required for every payment.²

¹ The history of the consolidated Memorandum and the causes of delay will be given in the next Chapter.

² C.R./4385.

Writing again on 30 October, they pointed out that, as a result of the treatment of the Accounts department since the Ministry was established, its records were of little value. The most elementary conditions, without which the accounts could not be useful, had not been satisfied. In a Government department there was no test of results corresponding to the profit and loss account in a commercial concern.

The obvious starting point was the statement of Army requirements. This ought to be translated into money value at standard costs, and the actual costs should be compared with this estimate. The writers had never seen any statement of requirements, or any estimate of money value, which could be the basis of such a comparison. They had seen that the Ministry expenditure was estimated at about £620,000,000 for the current financial year; but they doubted whether the Finance Member could obtain any statement showing how that figure had been arrived at, and they could not themselves state why the actual expenditure exceeded or fell short of it. When such elementary questions could not be answered from the accounts, how much less could it be discovered whether there was any waste in the use of capital, the placing of contracts, the choice of factories, etc.

The working capital of the Ministry amounted probably to £200,000,000. No definite allowance for this had ever been included in an estimate. A careful study of it might lead to a reduction by many millions and to the discovery of much waste, if a proper detailed statement of what was actually spent was placed before the executive authorities instead of merely contract prices, *i.e.*, a statistical statement of what was supposed to be spent.

Obsolete material was manufactured and accepted long after its obsolescence was known. Large quantities of timber had been distributed by other Government Departments to Ministry contractors, but not yet charged. The rejections of American products were on an enormous scale. The condition of many stores when they were taken over by the Stores Department was unsatisfactory. The writers were impressed by the weak position of the Ministry in respect of the provision of prompt and automatic clues to waste and extravagance.

Reporting again in November on the functions of the Accounts department, Mr. Guy pointed out that there was no one department responsible for all accounts. There were six :—

- (1) Certain contractors' accounts and certain Factory Control accounts (perhaps 70 per cent. of the Ministry accounts), under the Director of Munitions Accounts.

- (2) Explosives and Trench Warfare contractors, Factory Control and Factory Accounts, under the Deputy Controller of Munitions Finance.

- (3) Mechanical Transport contractors' accounts.

(4) Certain expense and cash accounts, under the Director of Munitions Finance.

(5) National Factory accounts (except Factories under (2) and (6)) under the Director of Factory Accounting.

(6) Ordnance Factory accounts.

The joint duties of these departments *should be* :

(a) to keep books of account on a double-entry system, recording all Ministry assets and liabilities, all purchases, sales, and movements (except Store to Store), and all payments and receipts in cash ;

(b) to prepare from these data periodical Balance Sheets, so as to show efficiency in the use of working capital ;

(c) to verify that bills rendered conformed with contracts and were supported by proper evidence of delivery, and then to authorise payment ;

(d) to prepare a Production Statement with an analysis of production such as would enable a comparison to be made of actual with standard costs ;

(e) to invoice all deliveries of Ministry assets and make due recovery.

It appears to have been the general opinion of the heads of the Finance department at this time that, the Ministry being now almost as largely a selling as a buying department, the responsibilities traditionally concentrated on the Accounting Officer ought to be divided between three independent heads of departments, each directly responsible to the Financial Secretary. In a memorandum¹ written early in 1918, it was proposed that the duties should be distributed as follows :—

(1) The *Accounting Officer* : financial estimates ; Production Statement ; purchases abroad ; capital expenditure, loans, and advances ; Government investments in private concerns ; lands ; housing schemes ; valuation of assets ; liaison officer for Treasury regulations ; establishment salaries ; cash and imprest accounts, etc.

(2) The *Chief Accountant* : (a) accounts at headquarters (contractors' accounts ; bills ; invoices ; movement of assets, except from Store to Store) ; (b) Factory accounts (National Factories, Rolling Mills, etc. ; Royal Ordnance Factories ; quarries, mines, canteens ; Factory audit and inspection of accounts ; supervision of Board of Management accounts) ; (c) Stores accounts (Stores, Bonds, Rectification Factories, Salvage dépôts) ; (d) Audit.

(3) *Controller of Munitions Contracts* : costing ; negotiation of contracts.

To these would be added (4) the separate section for the Reconciliation of contractors' accounts, responsible directly to the Financial Secretary and independent of the Chief Accountant.

¹ Unsigned and undated copy in C.R./4385.

It was pointed out that the position of the Finance Member of Council was without a parallel, either in the organisation of Government Departments or in a business concern. The Minister had laid it down that Members of Council were not to be executive heads of departments, and that the responsibility of the heads and their access to the Minister were not to be affected by the creation of the Council. The Finance Member appeared to be a staff officer to the Financial Secretary, to advise him on financial schemes, help in the negotiation of important contracts, and act as consultant on questions of policy. Under the scheme outlined above, he would have no responsibility for the organisation, personnel, or methods of the three distinct branches above defined, nor any authority over them except in the name of the Financial Secretary. This appeared to have been the Minister's intention with regard to all Members of Council; but it had begun to be tacitly assumed on both sides that Members of Council were executive heads of the groups which they represented.

General Memorandum 61 (22 February, 1918) did in fact recognise the Accounts department as distinct from "Finance" and assigned to it special duties; but the heads of Accounts remained for some time longer technically (though not in practice) subordinate to the Controller of Munitions Finance.

The Select Committee in their Report of March, 1918, commented very favourably on the results achieved by the officers entrusted with the examination and reorganisation of the Ministry accounts, but they were not satisfied that the status assigned to the Accounts department was such as to enable its heads to deal on a footing of equality with the other departments whose loyal co-operation was essential to their efforts.

"The heads of the (Accounts) departments are at present Assistant Controllers, though they do not report to the Controller of Munitions Finance but to the Finance Member of Council direct. They should therefore become full Controllers. Incidentally this step would help to remove a difficulty which at present stands in the way of strengthening their staffs, otherwise than by the release of accountants from the Colours.¹ Influential men cannot be attracted from outside by any prospect of earning high emoluments at the Ministry. They should at least be offered a position commensurate with the importance of their work."²

The importance of the Accounts department and the right of its heads to report directly to the Financial Secretary was recognised by the appointment of Mr. Guy and Mr. Garnsey as joint Controllers of Accounts shortly before the reorganisation of the higher staff of the Finance Group described in the next section.

¹ The Committee added a recommendation (10) that the War Office should order the release of qualified Accountants for National Service with the Ministry. The Ministry had been pressing for this throughout 1917, as it was impossible to obtain enough competent recruits in any other way.

² Report I. (1918), paragraphs 33, 34.

IX. Reorganisation of the Finance Group Higher Staff.

The Financial Secretary, after examining the status of the heads of the Finance Group, concluded that it should be improved in proportion to the importance of their duties, and, on 5 June, 1918, he announced to his Standing Committee a reconstruction of the higher staff.¹

Mr. Dannreuther (Accounting Officer), Mr. Guy, and Sir Philip Henriques were appointed Assistant Financial Secretaries. Sir Gilbert Garnsey became sole Controller of Accounts, and Mr. Webster Jenkinson Controller of Factory Audit and Costs. Finance, as previously existing under Mr. Dannreuther's direct control, was divided under the charge of three Controllers: Mr. H. Guedalla, Controller of Commercial Finance; Mr. A. E. Watson, Controller of Departmental Finance; and Mr. G. H. Duckworth, Controller of Labour Finance. Sir John Mann remained Controller of Contracts. Mr. Bowers and Mr. Mortimer were placed in charge of detached sections of the Group, as Controllers of Explosives Finance and Aircraft Finance respectively.

In announcing these changes, Sir L. Worthington Evans stated that Mr. Dannreuther remained Accounting Officer, and everyone who was doing accounting work was in that sense tributary to him. It was, however, desirable that he should be freed from the ordinary duties of a Controller, in order that he might take a broad view of Ministry transactions.

X. Final Reorganisation of the Finance Group.

In September, 1918, Mr. Kellaway succeeded Sir L. Worthington Evans as Parliamentary and Financial Secretary. To assist him in his financial duties and to secure co-ordination within the Finance Group a Finance Committee was appointed, consisting of the following officers:—

Sir Gilbert Garnsey (Controller of Munitions Accounts),
Chairman.

Mr. Dannreuther (A.F.S. and Accounting Officer).

Mr. J. H. Guy (A.F.S.).

Sir Philip Henriques (A.F.S.).

Mr. Guedalla (Controller of Commercial Finance).

Mr. Webster Jenkinson (Controller of Factory Audit and Costs).

Sir John Mann (Controller of Munitions Contracts).

Mr. Alexander Walker (Controller of Salvage and Stores).

Mr. G. A. Dutton, *Secretary.*

As Chairman, Sir Gilbert Garnsey became *ex officio* a Member of the Munitions Council.

It was announced² on 21 October that the Committee would be established on a formal and authoritative basis, would meet regularly and record its proceedings and decisions or recommendations.

¹ See General Memorandum 105, 4 July, 1918.

² General Memorandum 133.

It was to deal with all important financial questions, particularly those which related to two or more departments within the Finance Group, and any measure that affected the functions of the Group as a whole. It was also to deal with references from the Minister, the Financial Secretary, or the Secretary, and with any questions that any member of the Committee might wish to bring before it with the Chairman's concurrence. Action was to be taken on the Committee's decisions by the department concerned, important papers being first marked to the Secretary, the Financial Secretary, and the Minister for approval. Officers of the Finance Group who were not members might attend meetings by invitation. The formation of the Committee was not intended to impair the personal responsibility of its members for their several spheres of business. They would continue to deal directly, as hitherto, with the Financial Secretary, the Secretary and other Members of Council, and the departments of the Ministry.

In a special minute to the Chairman, which was read at the first meeting on 7 October, the Financial Secretary further defined the duties of the new Finance Committee. It was to be responsible for

“(1) settling all important financial questions affecting the various departments within the Finance Group, with a view to ensuring proper functioning within the Group;

“(2) advising the Financial Secretary upon all matters connected with the Ministry's finances.”

Members of the Committee were instructed to submit periodical reports to the Committee on all important financial matters arising within the departments under their control. The monthly report of the Accounts department to the Financial Secretary was to be continued, and summaries were to be circulated to the Committee, who would be expected to offer suggestions or issue any instructions they might think of importance in the interests of the Ministry as a whole. The Committee was not limited to matters referred to it, but invited to initiate enquiries and to cover the whole field of Ministry finance. They might refer special questions to the Financial Advisory Committee. The Chairman would represent the Finance Committee at Council meetings. Of the Assistant Financial Secretaries, Mr. Dannreuther would deal particularly with Treasury regulations, Mr. Guy with the general working of financial machinery, and Sir P. Henriques with Parliamentary and political considerations.

The new Committee immediately proceeded to appoint 18 sub-committees, which were instructed to report on practically every important aspect of the Ministry's financial business. Their labours had hardly been begun when the Armistice was declared. In the reconstruction which followed that event, the Finance Committee was reconstituted concurrently with the reorganisation of the Munitions Council.

CHAPTER V.

DECENTRALISATION.

I. The Meaning of Decentralisation.

The financial organisation of the Ministry throughout its existence may be said to have presented two main problems. The first was to discover some machinery of higher financial control capable of supplying effectively the place left open by the lapse of Parliamentary and Treasury control. The Munitions Council, as at first constituted, hardly met this need ; but the subsequent strengthening of the higher financial organisation described in the last chapter left little to be done in this direction.

The other problem round which discussion had revolved inconclusively was the proper relations between the Common Services (Contracts, Finance, Accounts, and Stores) and the Supply departments. When Mr. Churchill took office it was clear that the earlier attempts to reach a solution were not likely to be accepted as final. An intricate conflict of departmental interests, and the pressure of outside bodies such as the Select Committee on National Expenditure, made it difficult to discover a system promising to be both justifiable in principle and acceptable to the several parties. The controversy continued throughout the years 1917 and 1918. The final definition of functions was not promulgated until about three weeks before the Armistice.

The upshot was that the principle of "decentralisation" was adopted in the case of the departments of Accounts and Stores, but was applied to Contracts only to a strictly limited extent. It will be convenient to give here a general survey of the problem, and to distinguish the senses in which the word "decentralisation" was used.

From the first, the fundamental unit of organisation in the Ministry had been the Supply section responsible for a certain class of stores. These units might be indefinitely multiplied by the taking over of new types of supply, or by the subdivision of old types into smaller classes ; and again they might be grouped in various combinations as the framework of the big departments was remodelled. None of these superficial changes touched the fundamental principle. The Supply sections persisted from first to last as the nuclear elements in the structure. Their function was recognised throughout as the primary function for which the Ministry existed—the production and supply of a given class of goods.

Over against this series of Supply units, the "Common Services" ranked as a secondary order. Delivery of the goods stood first; after that came the price paid for them (Contracts), the provision of funds (Finance), the formal record of pecuniary transactions (Accounts), the housing and movement of the goods at every stage from raw material to finished product (Stores), and the other Common Services which lie outside the field of this volume. That these services were secondary was again an acknowledged fact. The problem of organisation was to discover in what relation they should stand to the Supply sections; and since the Supply sections remained as essentially irreducible units the question, more precisely defined, was to what degree the functions of the Common Service departments should be withdrawn from them and concentrated in Supply.

The problem is summed up in the alternative—centralisation or decentralisation. It is a familiar fact that this problem occurs in the history of most administrative institutions. It is there from the outset; but it is generally faced only after the institution has been allowed to grow, in response to the needs it has to serve, to a magnitude which threatens to be unwieldy. The growth involves an increasing internal complexity, and a corresponding loss of coherence. New centres are formed, from which activity spreads like the ripples made by a stone thrown into a pond. The circles clash and intersect—the phenomenon known as "overlapping"; and, as they widen and multiply, there is less living touch between each centre and all the others. The Ministry was passing through this phase in its first period, ending roughly with the year 1916. While the Supply sections increased very rapidly and went their several ways in energetic pursuit of a clearly defined object, the Common Services were either, as in the case of Finance, hopelessly submerged in the deluge of new work, or, as in the case of Stores, struggling into existence and trying to create order where chaos reigned.

The second phase coincides with Dr. Addison's ministry and the first half of 1917. The impulse towards centralisation came, as might have been anticipated, from the side of the Common Services, whose interest always lay in the maximum of uniformity. It began in the closely allied departments of Accounts and Stores, and led to a partial reorganisation of Accounts, and the formation of the centralised Stores department, which have been described in Chapter II.

The Contracts department stood in a different position. The Munitions Supply department itself had originally been no more than an offshoot from Contracts. That the internal structures of the two departments should correspond lay in the nature of things; the unitary transaction in which both were interested was the individual contract. Accordingly, at the same time that Stores and (to a much slighter extent) Accounts were moving toward centralisation, Contracts underwent no radical change. What change there was took place in the reverse direction—towards a more perfect "decentralisation" in the sense of completing the correspondence between Supply and Contracts sections, and establishing a more intimate collaboration.

For Contracts, the principle of "centralisation" which needed to be jealously guarded was the reservation to the Director of Contracts of a real and effective control over prices. The successive heads of the Contracts department firmly maintained that this independent control was the justification of the very existence of a separate Contracts department, and the Select Committee on National Expenditure strongly upheld the same principle.

The centralisation of Finance, as distinguished from Accounts, that is to say, of those higher finance functions which were connected with the provision of funds, the exercise of Treasury control, and the sanctioning of capital expenditure, was not challenged. It was obvious that these functions must be exercised by a single authority independent of any other department.

It is important to note that, in the two cases of Accounts and Stores, "centralisation" implied different things. The institution of a Central Stores branch meant chiefly the imposition of a uniform system of procedure governing the movement of all goods, in place of a number of such systems which had sprung up inside various Supply departments and caused confusion by growing divergencies of practice. It was necessary to collect these scattered sections under one authority, which could guarantee uniformity and provide Accounts with information of a standard pattern. This did not involve "centralisation" in any other sense. The sections of Central Stores could still be told off to corresponding Supply sections, and, where accommodation was available, be housed alongside of them. No objection was raised by Supply to the centralisation of Stores accounting. The protests that were heard expressed the claim of Supply to control the custody and movement of the goods it dealt with. This control was not in fact sacrificed by the new system: Issue Warrants still originated in the Supply sections. The essential object of centralisation was nothing more than the mechanical enforcement of a uniform procedure, without which Stores accounting and the accounts generally could not rest upon a stable footing. Once this uniformity was thoroughly established and all departments were trained to observe it, it became a matter of much less importance whether Stores organisation, apart from Stores accounting, was nominally centralised or not. Where the conditions of accommodation made it possible, it was obviously convenient, for ready communication, that the Stores sections should be housed alongside the corresponding units of Supply.

The reorganisation of Accounts, on the other hand, involved, in its first stage, not the concentration of functions hitherto scattered, but the redistribution of work inside the department itself. This implied "centralisation" in a different sense. At the beginning of 1917, the great branch M.F.1, whose relations with Supply branches were close, was recast in such a way that its sections were no longer self-contained units corresponding severally with units of Supply, but were divided according to function. The result was that, in so far as this change of principle was carried out, Accounts could not be again decentralised in the sense of being resolved into sections

which could be told off to Supply units by a simple process of disaggregation. Before this could be done, it was necessary to revert to the principle of correspondence with Supply branches—a principle which was only partially abandoned for a time because the shortage of competent assistants made it impossible to preserve it.

The various meanings of “decentralisation” are now becoming clear, and it may be well to set them down in order. The word was used in three senses.

(1) *Sectional*.—Sometimes it meant merely the subdivision of Contracts, Accounts, and Stores into sections, each self-contained and answering to a given Supply unit. This was a question of the internal distribution of functions within any Common Service.

(2) *Local*.—Such a subdivision rendered possible decentralisation in the second sense, namely, the grouping, in physical proximity under the same roof, of the related Common Service units round the Supply section they served. This was, on the face of it, a question of facility of intercourse. But the heads of the Common Services risked losing in some measure their power of supervising their subordinates. The heads of Supply stood to gain, not only by the reduction of delay in the passage of papers, but still more by the moral effect of closer collaboration. They were aware that a subordinate officer must tend to be controlled in practice by the officer of higher rank with whom he comes into most frequent contact, rather than by the distant superior to whom he owes official allegiance. The question here was governed largely by the brute facts of inadequate and makeshift accommodation. But there was also a genuine conflict of interest between Supply and the Common Services. The latter saw some danger in a too thorough decentralisation. The risk was greatest in the case of Contracts. It was admitted that negotiations with contractors could only be carried on by Supply and Contracts together under some system of collaboration. The question which of the two representatives really made the price in any given case was very delicate, and extremely difficult to decide by any minutiae of regulations. It obviously turned on the personal characteristics of each pair of individuals, the relative degrees of their knowledge and moral force, the harmony or disharmony of their mutual relations, and their comparative effectiveness in face of the other party. When all these moral factors were in play, it was really a matter of moment whether the subordinate Contracts officer felt that he was one wheel in the machine of the Supply department, or that he was an outpost of a central Contracts department and a trustee upholding the independent interest of financial economy, not only against the contractor, but, if necessary, against his own colleague. The simple fact was that the Supply Controller wished him to feel in the one way, the Controller of Contracts in the other. In determining this alternative, the mere question of geographical location was a not unimportant factor.

(3) *Administrative*.—There remains the third and most important sense, in which decentralisation was advocated and in some degree

carried out under Mr. Churchill's regime. The period of centralisation under Dr. Addison was immediately followed by a reaction. Supply, resenting the transference to a Central Stores branch of some of its accustomed functions, not only claimed that these should be restored, but that the essential function of Contracts (the fixing of prices), and some of the functions of Accounts, should be vested in the Controller of the Supply section. There was to be a system of "controlled autonomy," with some remaining central supervision exercised by Finance. This kind of administrative decentralisation implied the other two, but went beyond them and introduced a serious question of principle.

It was at this point that the ideal of the business man came into conflict with the traditions of the Civil Service. The Supply officer who was accustomed to managing a private business naturally aimed at gathering into his department all the functions relating to his particular class of goods, and he was in the habit of thinking of an accountant as a subordinate, who would give him advice when he asked for it. The Contracts and Finance departments, on the other hand, were directed by men experienced in Government methods and conscious of their responsibility to Parliament for the taxpayers' money. They had started under a heavy handicap, due partly to the undeniable need, at the outset, to produce munitions, no matter what they might cost, and partly to the weakness of the Finance organisation in the first two years. In 1917, Finance began to recover the position it should have held from the beginning, though it was labouring under the burden of the accumulated errors of the past. Simultaneously, the impulse towards decentralisation threatened the loss of the ground that had been gained.

II. Evidence before the Organisation Commission, May, 1917.

The Advisory Committee in March, 1917, had, in accordance with the terms of its reference, studied the situation from the financial side, and the outcome of its recommendations was the first substantial improvement in the position of Finance. The reaction became evident at the sittings of the Commission on Organisation in the following May. The case of the Supply departments now obtained a sympathetic hearing, and the drift of the evidence was strongly towards decentralisation. Supply agreed with Finance in so far as both complained of Contracts; but they were at issue when Supply claimed to annex the vital functions of Contracts and Accounts.

The position taken by Supply may be illustrated from the evidence given by the Director of E.M.7 (Non-ferrous rolled metal for small arms ammunition). Contracts, he said, now placed orders without consulting Supply. For instance, a section of Contracts had ordered some nickel plates and rods from a Birmingham firm for abroad. The firm was under contract with the Ministry, as directed by E.M.7, for the supply of cupro-nickel strip urgently needed for small arms ammunition. E.M.7, which was responsible for all non-ferrous strip,

had first heard of the order from the contractors, not from the Contracts department. The inference he put forward was not merely that the procedure for passing Contracts information to Supply should be improved, but that all Government orders (including orders for the Admiralty and other departments) to any trade should be placed through the Supply department controlling that trade.

The arguments of Supply were strengthened by the success of the arrangement now prevailing in the Trench Warfare department. It was stated that there had been no difficulties since representatives of the Contracts and Finance departments had been attached to the Supply department. They occupied the same room and worked together, and both were present when a contractor was interviewed. The Contracts representative was allowed to deal with contracts up to almost any figure, and the payment of contractors was now prompt.

The Director of E.M.7 also produced cases where a contractor had charged out the same goods twice over, because Supply did not check bills before they were paid by the Finance department.¹ He argued that the book-keeping should be done by the Supply department, leaving to Finance the payment of bills and the granting of loans. Many irregularities had been discovered since E.M.7 had arranged with the Finance department that they should certify their own bills.

The Director of E.M.2 (Small arms ammunition) went further still, and recommended that the payment of bills should be done by Supply. To this proposal the Finance department objected that it would not reduce their work, and that the bill-paying could easily be done if it were not delayed for lack of Contracts information. Mr. Guy stated that when the bill-paying sections were reorganised there had been 19,000 unpaid bills on hand. When the position had been cleared up he had still 7,500 bills for which no contracts terms existed. The number was now reduced to 2,200. The more decentralisation was admitted the more difficulty there would be in obtaining information from Contracts. For gleaning this information there must be some central organisation. He had posted a representative in every Contracts section to get the papers at the end of each day. The system did not work perfectly, because papers were held up in the Contracts department for other than financial points. Nine-tenths of the causes of delay were traceable to Contracts. But the most substantial objection to the Supply proposal was that the Comptroller and Auditor-General would hold the Finance department responsible, and it was impossible to allow Supply, not only to place the orders, but to pass the bills for payment.

¹ For example, a brass ingot manufacturer A. had despatched 100 tons of brass ingots to contractor B. and invoiced them to the Ministry at the conversion value of £11 10s. per ton. B. had rejected the consignment, but A. neither gave a credit nor replaced the goods. A. was thus in a position to send the 100 tons to another contractor and charge them again. The absence of the credit note had not been discovered till seven months later, when E.M.7 agreed with the Finance department to check all accounts before payment.

At the Ministry Finance Board on 5 June, 1917, it was reported that the Organisation Commission were considering the decentralisation of Finance by sections. The Assistant Financial Secretary (Mr. Mann) remarked that he had allowed this in the cases of Explosives, Trench Warfare, Aircraft, Mechanical Transport, and Tanks. It was agreed that in each of these cases the arrangement was specially justified by the fact that these branches dealt with a distinct group of contractors who received only a small quantity of materials and components from the main body of contractors. The chief obstacle to decentralisation lay in the difficulty of controlling charges for materials and components issued. The centralisation of Stores accounting in the Central Stores branch was founded on the same reasons which called for centralisation in the main sections of Finance. The members of the Board found the root of the trouble, not in the centralisation of Contracts and Finance, but in the lack of Contracts information both in Finance and Supply.

The Organisation Commission was dissolved before the controversy was brought to any conclusion.

III. The Extreme Demand for Decentralisation.

After the institution of the Munitions Council and the regrouping of departments on which it was based, Mr. Alexander Duckham lost no time in putting forward the case for decentralisation.¹ As a member of the Organisation Commission, he had been impressed by the unanimity of the evidence in that sense. He was able to formulate the problem in a clearer statement than any that had hitherto been made.

He described his proposals as a scheme for remedying the lack of co-ordination by putting the responsibility for co-ordination upon the Heads of Supply. These officers alone, he considered, had the necessary technical and business knowledge and sense of proportion, and also had before them "a picture of reasonable size." The picture, under the present conditions of centralisation, was too large for any one Common Service branch, and, moreover, these branches were ignorant of the other factors.

Among the Common Services, however, he drew a distinction. He did not propose to decentralise any branch which (a) distributed commodities to several Supply branches, *e.g.*, Materials, and Labour; or (b) held the scales between Supply branches, *e.g.*, Priority; or (c) would be only intermittently used by Supply. Against the services of this class there was little or no complaint.

Criticism was directed against Requirements, Contracts, Finance, Central Stores, Inspection, and Design. He pointed out that, if these departments did all that their names implied, there would be little room for Supply. Requirements would present the demand; Design would specify quality; Contracts would place the order; Inspection

¹ Memorandum of September, 1917. Copy in Mr. Watson's papers, Select Committee.

would certify the quality of the output ; Central Stores would manage storage and distribution ; Finance would pay the bill. But in practice the Supply branches, as specialists in technical and business knowledge of their several stores, were the centres to which these functional departments resorted for advice and co-ordination. The only branch which could control and co-ordinate in a scheme of decentralisation was Supply. The process would be facilitated by the principle of the Minister's new organisation, which invested executive responsibility for each important class of store in one Supply Controller. It was admitted that success would depend on the Supply Controller's qualifications. The writer regarded as essentials to complete control : (1) control of movement from demand to the final delivery ; (2) an interest in, and a measure of responsibility for, Inspection and Design, in so far as economical and efficient manufacture, as distinct from the military aspect, was concerned ; (3) control of the financial side, sufficient to provide a better financial check and to protect the Minister's responsibility to the Treasury. The Controller would need to be a man capable of taking a broad view of all his functions and preserving a sense of proportion. He should stand or fall by the adequacy of his performance. The present difficulty of locating responsibility for leakages, omissions, wrong policies, delays, overlapping, excessive staff, would disappear when all these responsibilities were centred in one individual.

It was suggested that decentralisation should proceed gradually in the following order :—(A) Contracts, Finance, Central Stores, Requirements ; (B) Design, Inspection. Under (A), an officer from each Common Service branch should be detailed to work under the Supply Controller, while remaining responsible for general principles to the Head of the Common Service, with whom he would communicate through the Supply Controller. He would also be subject to periodical audit or investigation by the Common Service branch.

Finally, the writer dealt with the possible objections to this form of decentralisation. (1) The Heads of the Common Services would risk some loss of control. This, he thought, could be met by laying down principles in general rules. (2) Responsibility to the Treasury could be safeguarded by not allowing the Supply Controller to pay bills or collect money. (3) The difficulty arising where one manufacturer dealt with more than one Supply department could be removed by instituting a General Control ledger for such cases. (4) Fraud could be checked by periodical inspection, or by a continuous audit by the Common Service branch, or both.

What has been called the business man's ideal shines through the texture of this scheme. It was even more boldly stated in the following year by an eminent man of business, who acted as Chairman of a sub-committee of the Staff Investigation Committee.¹ The writer began by saying that the division of control and responsibility between

¹ Letter of Mr. F. W. Bishop, 4 July, 1918. HIST. REC./R./263.21/2. For the Staff Investigation Committee, see below, p. 142.

the Controller of Supply and Finance, Contracts, and Central Stores appeared to the commercial man to be a mistake. It made for delay and duplication of function and staff. He proposed to arrange the Supply departments in groups of seven or eight, each under a "Group General Manager," with functions of general supervision and consultation. Under him, each Supply department was to be a self-contained unit, placing all contracts at suitable prices, subject to the Group General Manager's approval of new contracts above a certain limit of value. All accounts and claims were to be attended to by an Accounts section located with Supply, and responsible either to the Group General Manager or to the central Finance department.

The objection was understood to be that the Supply officer, not being subject to the test of profits earned, would be careless of cost and content to obtain supplies. Contracts and Finance represented that bad contracts were prevented only by their constant vigilance. To this the writer replied that if the Controller was to depend on these promptings he was the wrong man for the post. The managing director of a commercial concern did not frame his policy at the bidding of his legal advisers or accountants, who were useful in their right place. The business in hand—the supply of material—should be centred in the Supply department, not in the legal or recording sections. With proper organisation and personnel the Supply department ought to be run like a big business concern. The Group Manager and audit officers would supply a sufficient check.

It need hardly be said that the ideal, as stated in this extreme form, could not be seriously entertained by anyone acquainted with the traditional view taken by Parliament and by the Civil Service of the administration and expenditure of public funds. The division of control and responsibility between Supply and Finance which "appeared to the commercial man to be a mistake," appears to the Treasury, to the Comptroller and Auditor-General, and to the Public Accounts Committee to be the corner stone of pure administration. When even Mr. Alexander Duckham included the protection of the Minister's responsibility to the Treasury among the essentials of the control to be vested in the Supply officer, he went beyond any suggestion that had hitherto been made. The claim of the Accounting Officer to represent, with absolute independence of Supply, the interests of the Treasury and of the public had never before been challenged. This particular suggestion went no further. Finance, as distinct from Accounts, retained its independent position.

Contracts, as has been seen, had already been decentralised to the furthest point consistent with the reservation of the independent control of prices. It will be remembered that, in accordance with the strong recommendation of the Select Committee in their Report of March, 1918, the Financial Secretary stated that the undivided responsibility for price rested with Contracts.¹ This stronghold was

¹ See above, p. 112.

again to be assailed in the summer of 1918, but attention was at first directed rather to Accounts, the department in which the centralising movement at the beginning of 1917 had originated.

IV. Decentralisation of Accounts.

In their report to the Minister for the month of October, 1917,¹ Messrs. Guy and Garnsey stated their views upon the proposal to decentralise the Accounts department.

The measure of decentralisation already attained was as follows :—

(1) *Accounts definitely segregated as Accounts sections and located with the relevant Supply and Contracts sections*: Purchases of Explosives; Trench Warfare Material; Tanks; Mechanical Transport Material; Aeronautical Supplies; Railway Materials; Optical Munitions; Royal Ordnance Factories; Stores expense items.

(2) *Accounts segregated as Accounts sections, but not attached to Supply or Contracts sections*: Purchases from Morgan (U.S.A.); Imperial Munitions Board (Canada); Railway Executive Committee; Co-operative Committees; Switzerland (Fuze Contracts). Financial Loans. National Factories, Quarries, etc.

Of the remaining departments—purchases of Guns and Shells and of Raw Materials (other than Morgan)—the Gun and Shell group was so large that it might be regarded as unduly centralised, especially as Gun and Shell Components were dealt with by several Supply and Contracts sections. Raw Material was divided into sections, each dealing with a distinct commodity.

There were also one or two departments solely concerned with debits or charges, for example, Allied Government Accounts and Cash Sales.

The process of decentralisation had never been carried through, apparently because there were many Contracts sections which dealt with Accounts, but which remained centralised, *e.g.*, Shell components.

The principle had been a division by *Purchase* departments, and on the whole it had shown very satisfactory results. In direct opposition to this principle, the writers had been urged to decentralise by *Sales*. It was obviously impossible to do both. Decentralisation by sales would mean locating with the Supply department the accounts, not of the contractors from whom they bought, but of the contractors to whom they delivered material.

The effect could be illustrated by the small arms ammunition manufacturer. He received explosives, cups, nickel strip, brass strip and spelter, and turned out small arms ammunition. Three Supply departments were concerned on the Sales side, and a fourth

¹ 1 November, 1917. HIST. REC./R./450/17 (copy).

on the Purchase side.¹ The proposal was that the centralised Accounts section should charge the several decentralised sections with the material supplied at standard prices, and then the decentralised sections should charge the contractor at the proper prices. Another section would pay the contractor for his output. The writers were strongly opposed to a system which would entail keeping in different sections three or more accounts with one contractor and relating to the same contract. There was serious risk of over-payment by the centralised section, if the decentralised failed to collect cash promptly, and there would be unnecessary duplication of clerical work.

Division by Purchases was supported by the following reasons :—

(a) The Ministry was essentially a purchasing department, and development had followed that line. (b) Several classes of material were supplied to the contractor on one contract, but there was only one output. (c) The department supplying material was not necessarily well informed as to the contractor's output. (d) The section paying for output must be held responsible for recovery of materials supplied. This was the most important financial consideration.

The reconstruction of the accounting system on a commercial basis reached its completion in the early months of 1918. By the end of the financial year, the Accounts department had been divided into self-balancing sections. Some of these were self-contained (Explosives, Aeronautics, Trench Warfare, etc.) ; a number of others, however, were still divided on a functional basis. This latter principle of subdivision entailed that the accounts of any one contractor were split up among several sections, so that the position of the contractor's account with the Ministry as a whole was not readily available for review. The same result would occur under the system of decentralisation in the case of contractors dealing with more than one Supply department. This point was considered by the Financial Secretary's Standing Committee in February, 1918. The result was the formation, in April, of a section (D.M.A. 33) whose business was to collect the information necessary for a continuous survey of all contractors' accounts,

¹ The following case was given (among others) to illustrate the number of different sections concerned with the Sales side of a single contract for a standard article :—

BELSIZE MOTORS, LTD. 94/MANCHESTER/763, SHELL, SHRAPNEL.

Material.	Sales of Material.		Purchase of Output.	
	Supply Section.	Contracts Section.	Contracts Section.	Supply Section.
Forgings	A.M.7	P.M.2	} P.M.2	G.A.F
Bands	A.M.2 B	"		
Tubes Boxes	A.M.2 D	"		
Tin Cups	G.A.F	"		
Bullets	"	P.M.3		
Resin	"	"		

with a view to reducing indebtedness and hastening settlement. The section was to report specially on contractors indebted to the Ministry for more than £100,000 ; but it was also to submit periodically to Mr. Guy and Mr. Garnsey a summary of all contractors' accounts for review. The section had other functions connected with the watching of contracts. Its importance here is as a means to obviating one of the objections to decentralisation.

V. Evidence before the Staff Investigation Committee.

The March (1918) Report of the Select Committee contained strong comments, already quoted, on the uncertainty which appeared to exist as to the responsibility for prices. On this occasion Mr. Alexander Duckham once more stated his views on decentralisation in a letter to the Financial Secretary.¹ He wrote: "I contend emphatically that the Supply officer should be held responsible for quantity, quality, and price, just like the managing director of a business concern." The Supply officer should have under him Production and Contracts, and preferably Inspection and Design. One man who knew all aspects should be responsible for the supply of stores. As it was, the contractor was bandied from one official to another. When arrangements were practically made he was passed from Supply to Contracts, and finally he had to deal with Finance.

It was evident that the issue of General Memorandum 61² in February had not settled this interminable question to the satisfaction of Supply. It was revived in April at the sittings of the Staff Investigation Committee, which was appointed "to enquire into the numbers of, and methods of employing, the clerical and other members of the administrative staffs of all departments of the headquarters establishments of the Ministry of Munitions, and to consider and report what economies and improvements can be effected." The Chairman was Sir Charles Henry, Bart., M.P.

Before this Committee, Mr. Guy advocated the universal extension of the principle already in force in the Explosives department and in some others. He argued in favour of local decentralisation. If the allied sections of Supply, Contracts, Accounts, and Stores, concerned with a given class of munitions, were housed in one building side by side, the sections would keep in closer touch and clerical work would be greatly reduced. At the present moment Supply, Accounts, and Stores were all, from their several standpoints, watching deliveries from the same contractors. The Assistant Secretary and the head of the Establishment branch remarked that the proposal was not new ; the real obstacle was accommodation. Mr. Guy, however, was asked to draw up a memorandum.

Mr. Guy and Mr. Garnsey,³ accordingly, analysed more fully the defects of the existing system, and recommended the re-grouping

¹ Letter of 2 April, 1918. Mr. Watson's papers, Select Committee.

² See above, p. 109.

³ Undated copy in C.R./4395.

of departments according to the groups of contractors with whom they dealt, coupled with local decentralisation. At present, the routine work of the headquarters staff rested on two basic facts. (1) Most of the business with contractors (the bulk of the work) was done, not on general account, but on individual contracts, which sometimes amounted to 200 or 300 with one contractor. (2) The principal concern of the headquarters staff was to stimulate, direct, and record the movement of goods, as to terms, dates, quantities, amounts, and their effect on both consignors' and consignee's contracts.¹ These two conditions governed the character of the records and work of five groups of departments: Supply departments for raw materials; Supply departments for manufacture; Contracts; Stores; Accounts. Since each of these groups had a distinct interest, it watched the progress of each contract from its own standpoint, and secured the necessary returns. Yet this system did not adequately cover some points. Thus, the Raw Materials department was not informed of the contractors' output; the Supply departments supervising output were not informed of the materials supplied to their contractors; few Supply departments knew the financial position of their contractors' accounts, so that they might not supply goods to contractors in default as to payment for materials or as to deliveries.

Under each contract, the procedure with regard to an individual transaction posted to Contract records was as follows: (1) The Supply department sent to Central Stores an order to move the goods; (2) Central Stores sent out to the consignor an Issue Warrant in sextuplicate, to be distributed to the parties interested; (3) The movement was evidenced by the Advice Note, made out by the consignor, also in sextuplicate; (4) Inspection was certified on Inspection Notes. The Supply department had to follow up the order and secure information for their summary of the contract. Central Stores also verified execution, keeping an Issue Warrant card for every movement. Accounts had to charge and credit in money value all goods despatched. It did not get the benefit of the control exercised by Supply and Central Stores, because its paying sections were not housed in close neighbourhood with them. Joint records and better control could be attained if all departments dealing with one group of contractors were housed together.

Besides this change of locality there should be some administrative change, giving a head to each major group of operations. For the purposes of Accounts, the best departments had been those, such as Explosives or Mechanical Transport, where a large amount of amalgamation had occurred. There was most delay and confusion where amalgamation was least: for instance, in the case of Ammunition components.

¹ It was true that some National Factories had a very large output, but the cost of the work done there was not 20 per cent. of the total value of the final output, since it largely consisted of filling and assembling components made by contractors. Also, though work in the Factories was conducted by local staffs, movements into and out of them were directed from headquarters.

The preference for self-contained departments dealing with groups of contractors was supported by the evidence of officers of the Explosives department, which had attained this ideal.¹ This department moved its materials without any intervention on the part of Central Stores. It could account for all its expenditure from the outset. It debited any department supplied by it (*e.g.*, the Admiralty, the Gun Ammunition Filling department of the Ministry) with the value of commodities supplied. It had even produced an experimental Balance Sheet for the year ending 31 December, 1917. The Finance section worked as an integral part of the Supply department, but owed separate allegiance to the Financial Secretary, and was answerable to the Controllers of Contracts and Accounts. There was no separate Contracts section; the Contracts work was divided between Supply and Finance sections, Supply conducting all the negotiations, Finance controlling the price and carrying out any investigations of costs. The recent report of the Comptroller and Auditor-General had left the accounting of the Explosives department unscathed. Sir P. Henriques strongly favoured this form of decentralisation for a large organisation like the Ministry. He compared it to the branches and head office of a Bank. He admitted that strong central control was needed for policy and for matters of major importance. In minor matters full powers should be delegated to the local department.

The Chairman of the Staff Investigation Committee, Sir Charles Henry, suggested that each Supply department should periodically make out a departmental Balance Sheet. The department would be debited for all receipts and credited for all issues of commodities, and thus charged with financial responsibility for its operations. He also thought that the present division between Supply and Contracts functions should be abolished, and Supply should take over the making of contracts. In reply to the objection that the Treasury would not allow the Supply officer to be solely responsible for prices, he observed that the changes proposed were not intended to weaken central control over finance.

The opposition to carrying administrative decentralisation to the point desired by Supply came from the Contracts department. The Controller of Contracts gave evidence on 31 May. He did not regard the system of the Explosives department as ideal. Though otherwise good, he thought it did not give enough opening for independent criticism. On the vital question of prices, he maintained that better results were obtained under the other system, where Contracts officers dominated the position and conducted the negotiations. Where Supply negotiated, there was less friction with the contractors, but Supply had no special motive to keep prices down. Contracts had often reduced prices (*e.g.*, for non-ferrous metals) which Supply had judged to be proper. Recently, the greater control of Contracts over prices had effected large savings. The merging of Contracts and Supply would not much reduce the staff, and would

¹ Evidence before Staff Investigation Committee, 1 and 3 May, 1918.

be paid for very highly. Contracts was already, in almost all cases, decentralised geographically. Where several sets of negotiations were going on at one time with one contractor for different classes of stores, it was found better that central Contracts officers should negotiate for a nett result on a reasonable basis of give-and-take. The witness thought that decentralisation of Accounts on somewhat similar lines would be advantageous. It would localise responsibility for blunders, facilitate a departmental Balance Sheet, and reduce the numbers of minutes and of the subordinate staff.

VI. Sir L. Worthington Evans' Scheme.

While the Staff Investigation Committee was still taking evidence, the Financial Secretary, on 6 May, 1918, submitted to the Minister a memorandum of "Proposals for decentralisation of the Contracts and Accounts departments, with additions to the duties of the Controller of Supply departments."¹

Sir L. Worthington Evans pointed out that, while there was, in the Supply, Accounts, and Stores departments, duplication and some triplication of clerical work in records intended to check the state of contractors' accounts, each record depended in part on the work of another department, and no one of them provided a complete check. It was possible for a contractor to receive raw material on credit largely in excess of his needs. His contract deliveries might not correspond with his receipts of material. He might be overloaded with contracts beyond his capacity, or be cut down when further output would have repaid a debt to the Ministry. For lack of records giving a complete view of each contractor's position, little progress had been made in reviewing contracts so as to prevent over-deliveries or to cancel unfulfilled contracts or orders for obsolete stores.

The objects of the writer's proposals were to save staff and to consolidate the records, so as to make them an effective instrument of daily control.

"It is proposed that the Controller of each Supply department in charge of output should be responsible for

- (a) fulfilling the supply programmes entrusted to him by the Director of Requirements ;
- (b) making the contracts through his Contract officer ;
- (c) compiling the record of deliveries ;
- (d) keeping the account with the contractor and collecting money from, and paying money to, the contractor through his Accounts officers ;
- (e) authorising the issue of raw materials, and checking and controlling their economical use ;
- (f) keeping the records of Issue Warrants ;
- (g) obtaining financial sanction when it is required."

¹ Munitions Council/363.

The advantage of this system, which had been applied in the Explosives department, was that the Controller was responsible for all his dealings with his contractors. If the group of supplies entrusted to any one Controller were not too large, he should be able to keep in constant and daily review the state of each contractor's account, the amounts due to him and from him, and the deliveries under each contract.

The contract would be made in the Supply department and passed to the Accounts branch in the same department for noting. The Accounts officers would soon become familiar with the average requirements of a small group of contractors, and be trained to note exceptional cases which might call for enquiry.

The same department would direct the movement of materials.

The department would collect, and contribute to a central record, a list of its contractors showing the result of costings against the particular supply, the state of the account, and the deliveries and rejections. The amalgamated list would supersede the many partial lists now in use.

Some safeguard was needed against the temptation of Supply to obtain goods without regard to cost. The Supply Controller who signed the contract should apply all the checks now applied by a Contracts officer. It was proposed that the Controller should be guided by technical or accountancy costs ascertained by an independent Costing department. Financial sanction should be required for all contracts over £25,000; or for purchase in foreign countries; or for all contracts in respect of which the Controller could not certify that the contractor would not require financial assistance.

Since any contractor might have dealings with more than one Supply department, some central review of accounts and contracts would also be necessary. The Controller of Munitions Accounts should lay down the form of accounts to be kept by Supply, and conduct an internal audit. The Accounts officers in Supply departments should remain officers of the Accounts department (except for office discipline). An Inspector of Contracts, replacing the present Controller of Contracts, should lay down the general terms and clauses to be inserted in all contracts. He should be entitled to investigate the system of contracting in any Supply department, and report to the Financial Secretary. But he should not be responsible for the prices fixed by the Controller of Contracts and Supplies.

The present Stores department should act as an inspecting department, and keep the records of stores in hand at the Ministry depôts. The records of movement would be kept by Supply.

The proposed changes had already been prepared for. Contracts had detached officers to serve in the Supply departments, and Accounts had had its ledgers divided into sections corresponding with the Supply departments.

At a Council Meeting on 16 May, the Financial Secretary's proposals were approved in principle. The Minister directed that the scheme should be pressed forward and explained to the Treasury and the Select Committee on National Expenditure, with a view to removing the objections anticipated. The Minister wrote that these proposals commended themselves generally to him, and directed that the Members of Council should be invited to make written comments.

The Supply Controllers naturally welcomed the suggestions. In summarising the replies, the Secretary pointed out the distinction between (a) local decentralisation of Contracts, Accounts, and Stores sections, control being, however, reserved by the central departments, and (b) administrative decentralisation as proposed by the Financial Secretary. The former had already been carried out to a considerable extent. The latter would meet with serious opposition on the part of the Treasury.

Sir John Mann, Controller of Contracts, again objected to going beyond local decentralisation. He urged the advantages of settling simultaneously with one contractor a group of problems affecting several departments. Thus, the North British Company had negotiations relating to shells, tanks, and locomotives, French and British. His main objection was to the abolition of Contracts control. The pressure of Supply would often unconsciously prevail over the pressure for economy. Inspection of contracts after they were made could at best only check the recurrence of any extravagance. The extension of financial sanction to all contracts over £25,000 would be a retrograde step. "Financial control not resting on the support of an independent Contracts department is largely illusory, because it comes too late and with insufficient knowledge." It did not appear that any defects in the present Contracts organisation were alleged.

To meet Sir John Mann's principal objection, the Secretary proposed that, while the Supply officer should negotiate and conclude the contract, the fixing of the price should be reserved to the Contracts officer. The Financial Secretary thought, however, that it was impossible to distinguish between negotiating and fixing a price. He adhered to his original proposal; but, foreseeing opposition and delay, he was willing to proceed with a less thoroughgoing scheme of decentralisation.¹

Thus, the effect of the opposition of Contracts, supported as it was by the decided opinion of the Select Committee on National Expenditure, was that one point at issue in this tangled controversy was, at least for the time being, settled. The responsibility in Contracts for the fixing of prices was not to be impaired. The further decentralisation of Contracts was now to be contemplated only of the sense of the division, already to a large extent accomplished of that department into sections corresponding with Supply unit, and capable of being housed alongside of them. On the other hand, as will presently be seen, the Staff Investigation Committee were

¹ Munitions Council/363.

not satisfied that the objections of the Controller of Contracts could not be overcome on the lines proposed by the Financial Secretary. This cross-current of opinion caused delay.

VII. The Committee on Decentralisation.

On 31 May, the Minister approved the appointment of a departmental Committee instructed "to consider with the departments concerned and prepare the details of a scheme for the decentralisation of Contracts, Accounts, and Stores, without alteration of the present relations of Supply and Contracts." The members were: the Assistant Secretary, Mr. J. Masterton Smith (Chairman), Mr. Guy (Accounts), Mr. Dulanty (Establishment), Major Dewar (Statistics), and Major the Hon. L. H. Cripps (Central Stores).¹

The Staff Investigation Committee was still pursuing its enquiries, but was not likely to produce a final report for some months. It was clear, however, that the drift of the evidence was all in the direction of administrative decentralisation, provided the independence of Contracts could be safeguarded. Meanwhile, the Minister wished to make some actual progress in settling the details of reorganisation on these lines. The Decentralisation Committee was to proceed at once with the preliminary spade work.

The new Committee began by ascertaining the present position of geographical decentralisation in the departments of Contracts, Accounts, and Stores. (1) It was found that decentralisation was complete in the cases of Optical Munitions, Mechanical Warfare, Aeronautical Supplies, Trench Warfare, Railway Materials, and Explosives.² (2) In the cases of Guns, Non-ferrous Metals, Ammunition Filling, Munitions packages, and Machine Tools, Supply and Contracts were attached, and the Central Stores sections were housed close at hand, though not directly attached. In each case the Accounts sections were in different buildings. (3) In the cases of Mechanical Transport, Horsesdrawn Transport, and Gauges, Supply and Contracts were housed together (no Stores sections being involved), but the Accounts sections were in different buildings. (4) In Gun Ammunition Manufacture and Small Arms Manufacture, the Stores sections were adjacent to Supply, but Accounts and Contracts were so far distant as to be practically separate. (5) There was no geographical decentralisation for Ferrous Metals, Machine Guns and Rifles, Agricultural Machinery, and Electrical Supply.³

The Committee took as the basis of its work a scheme, drafted by the Secretary of the Ministry, for a General Memorandum consolidating the earlier Memoranda 61 and 71, already quoted,⁴ in which the functions of the departments had been defined. The

¹ Munitions Council/363.

² In the last three cases the Central Stores department was not involved.

³ Collection of papers relating to the work of the Decentralisation Committee, HIST. REC./R./450/19.

⁴ See above, pp. 109, 123.

object proposed was to meet the principles of the Select Committee's recommendations, and at the same time to simplify departmental machinery and economise staff. The Secretary wrote :—

“ The main feature of the change is decentralisation in working of Contracts, Accounts, and Stores, and their closer association with Supply, while providing adequate and real safeguards in respect of finance, costings, the fixing of prices, and auditing of accounts. Such safeguards are secured by retaining the responsibility for these functions in the hands of authorities independent of, and equal in rank to, the Controllers responsible for Supply.”

Finance (as distinct from Accounts) was not to be in any way affected.

With regard to costings, the Select Committee had recommended that the Technical Costing section, whether removed from the Contracts department or not, should be immediately strengthened and should undertake all engineering costing in the Ministry. Since costing work could not with advantage be separated from the fixing of prices, the scheme provided for both these functions resting with the Controller of Contracts, though it was intended that the actual work should be localised so far as possible, in order that full use might be made of the technical knowledge possessed by the Supply departments.

Contracts had already been locally decentralised for some departments, where local officers were empowered to conclude contracts up to £40,000 without reference to the Controller or Deputy Controllers of Contracts, except where financial sanction was required. It was proposed to retain this figure, and to extend the same system to all departments. The effect would be that the negotiation and arrangement of contracts would be conducted by Contracts in closer association with Supply. Financial interests would be safeguarded by the requirements for financial sanction. The responsibility for prices and terms of contracts would remain for the present with the Controller of Contracts in accordance with General Memoranda 61 and 71.

There followed the first draft of the proposed consolidated Memorandum. After their first meeting on 3 June, the Committee reported that they considered that the functions of the several departments must be defined in a document of this kind before the principle of decentralisation could be applied to particular departments. The Financial Secretary approved of the Committee's proceeding on these lines. They accordingly set about revising the draft. In so doing, it was borne in mind that General Memoranda 61 and 71 had been communicated to the Treasury, and referred to in the House of Commons, and by the Select Committee on National Expenditure. The Secretary of the Ministry accordingly considered that the revised Memorandum ought not to involve any change of principle in respect to the relations of Contracts and Supply.

By 17 June, the Committee had prepared a revised draft for submission. It was to be long, however, before the Memorandum

saw the light. The heads of Supply were not satisfied with the measure of decentralisation proposed. They received support from the Staff Investigation Committee, which, on 1 July, produced an Interim Report.¹ This document was rather in the sense of the Financial Secretary's earlier proposals than in agreement with the principles on which the Decentralisation Committee had been working.

The Report stated that the Committee was unanimous in the opinion that the staff could not be much reduced while the present highly centralised system lasted.

"In the judgment of the Committee, the only satisfactory method by which the machinery for conducting the enormous volume of the Ministry's business can be simplified, with a consequent saving of staff, is to combine in each department responsible for a particular class of supply the operations at present performed by the Supply, Accounts, and Contracts departments, including that part of the Central Stores department at present responsible for recording the movement of goods and material. Each department responsible for a main class of supply should be regarded as an independent business, and the Controller of the department should be held responsible for ensuring that the authorised programme requirements passed to him are met, and that all measures to fulfil these requirements are taken; that the accounts with contractors working for his department are kept and watched, and that their bills are paid; that the movements of all goods and material with which his department is concerned are recorded; and that a Balance Sheet summarising the financial effect of the activities of his department is rendered every half-year. To enable the Controller to discharge these functions, he should have under him officers responsible for production, contracts, and accounts.

"The Committee at the same time recognise that a strong central control over contracts should be maintained, and in their judgment this should be secured by retaining an officer who would perform the duties of an Inspector-General of the Minister's contracts, who should determine the general terms and forms of clauses in all Ministry contracts, and would at the same time have attached to him a strong Costings branch. Additional financial control would be secured by the central authority of the Finance department, and also by the retention of a Central Accounts department responsible for the Ministry's Balance Sheet as a whole, and for the internal audit of the accounts kept throughout the Ministry. Subject to these safeguards, the Committee are of opinion that the fears entertained by the Controller of Munitions Contracts would not be realised. In the early days of the Ministry, the main function discharged by the Supply departments was that of developing the existing resources of the country for the manufacture of

¹ Munitions Council/363.

munitions and creating new. After three years these resources have been explored and can be catalogued—the result being that this function has become of less importance, and the duties developed upon the Supply departments have, in the main, become those of distributing orders between ascertained and proved sources of manufacture and following up the progress of the orders so placed.”

The Committee's recommendations were in the sense of these paragraphs.

The effect of this Report was to revive the scheme propounded at the beginning of May by the Financial Secretary. This had all along found favour with the heads of Supply. The question of the independent responsibility of Contracts for prices, which the Decentralisation Committee had taken as settled, was now reopened. The Controller of Contracts maintained his opposition to any change, and the Select Committee supported him. On the other hand, the Chairman of this Committee appeared to favour decentralisation, and the Munitions Council, on which the Supply Controllers were in a majority, was inclined to favour the Financial Secretary's scheme.¹

The month of July was spent in further discussion of this conflict of opinion. On 2 August the Secretary submitted to Mr. Kellaway a draft of the consolidated memorandum which had been approved by Sir L. Worthington Evans and circulated to Supply Members of Council. The alterations suggested by them had been incorporated, in so far as they did not touch the principle of the relations between departments. The Secretary proposed that the Memorandum should be issued at once; but that the Decentralisation Committee should remain in being and consider the effect three or four months later, when it might be possible to bring to a head the question of decentralising Contracts. With Mr. Kellaway's concurrence, the Secretary then submitted the draft to the Minister, pointing out that the new Memorandum amounted to no more than the consolidation of the two Memoranda 61 and 71 with a few amendments. It would not prejudice a more thoroughgoing policy of decentralisation. The Minister on 8 August sanctioned the issue of the Memorandum. It did not, however, appear. The Financial Secretary was absent, and the Munitions Council agreed to postpone consideration of it until his return.²

VIII. Progress of the Decentralisation of Accounts.

While the position of Contracts thus remained unsettled, there was nothing to hinder the decentralisation of Accounts. In August, Mr. Guy and Sir G. Garnsey carried through this reorganisation in the Accounts section for Non-ferrous metals. The section was located

¹ Minute by Sir L. W. Evans to the Minister, 10 July, 1918. (Copy (unsigned) in Sir L. W. Evans' papers.)

² Munitions Council/363.

with the Supply Controller, and the Controller of Accounts delegated to him his responsibility in the following terms :—

“ C.M.A. agrees that you should take charge on his behalf of the Accounts relating to the Non-Ferrous Group, but reserves the right to assume full responsibility himself in the event of the Accounts not being kept to his satisfaction.

“ C.M.A. to approve the form or system of account-keeping and the appointment of staff to carry out the work ; to receive such returns and statements as he may require from time to time ; and to have a right of access at all times (either in person or by representative) to the books and accounts kept in the Group.”

In their report for August, Mr. Guy and Sir G. Garnsey stated that they hoped soon to make similar arrangements with other departments, and so to carry out the scheme which had been contemplated for some months past. The September report records that decentralisation on these lines had been arranged for Machine Tools, Optical Munitions, and Semi-manufactured Materials, though the change had not been actually made. The accounts of the Non-ferrous Metals Group were working well.

In October, Mr. Guy reported to the Finance Committee¹ that substantial progress had been made with the decentralisation of Accounts and Stores in Non-Ferrous Raw Materials, Non-Ferrous Semi-manufactured Materials, Optical Munitions, Surplus Stores, and Machine Tools. The first effect could now be estimated in the Non-Ferrous Raw Materials Group. There had been a great consolidation of partially overlapping records, a reduction in staff, and an acceleration of the business routine. The staff for Supply, Accounts, and Stores together had been reduced by 31 per cent. (from 150 to 103). The effect on the numbers of Bills and Advice Notes was shown as follows :—

	Old System.	New System.
BILLS.		
Balance taken over by decentralised group	2,374	394
Average weekly input	1,000	829
Balance	= 2½ weeks' input.	= 2½ days' input.
ADVICE NOTES.		
Balance on hand (say)	35,000	177
	(including Stores).	
Average weekly input	8,000	1,453
Balance	= 4½ weeks' input.	= 4 hours' input.

Mr. Guy added that the method had been adopted too late to be carried through completely. It was, however, so urgently needed for the conduct of demobilisation that a modified scheme would be

¹ Copy in HIST. REC./R./450/16/3.

included in the demobilisation plans of the Accounts department. Mr. Guy desired that the Finance Committee should endorse the principle, as a formal record for the guidance of the Ministry of Supply, should such a Ministry be created.

At the meeting of the Finance Committee on 30 October, the Chairman observed that the results already obtained proved the wisdom of the principle beyond doubt, and Mr. Guy's report was approved.

IX. General Memorandum, No. 134, defining the Relations of the Departments.

The consolidated Memorandum came up for consideration again in September, when Sir L. Worthington Evans returned after his absence. He had expressed a wish to see what would be involved if the draft memorandum were widened so as to give full effect to the Staff Investigation Committee's recommendations.¹ The Secretary had accordingly prepared a memorandum on these lines, which he sent to Sir L. Worthington Evans on 19 September. He pointed out that the actual changes involved would be small in respect of the scheme itself; but that it would be necessary to obtain the sanction of the Treasury. He added that the Select Committee had not been convinced by Sir L. Worthington Evans that Contracts ought to be reorganised in the manner proposed, and that it was unlikely that the Treasury would go against their opinion. Further, if the responsibilities of the Supply Controllers were to be increased in this way, the choice of individuals to fill these posts would require careful handling, and it would be necessary to proceed slowly.²

Before the question had advanced further, Mr. Kellaway succeeded Sir L. Worthington Evans as Financial Secretary. On 4 October, Mr. Kellaway wrote to the Secretary that the draft memorandum should be discussed at an early meeting of the Finance Committee, the Secretary being present. The Committee approved the draft on 16 October, and orders were given that it should be printed and published. It was accordingly issued, as General Memorandum No. 134, on 21 October.³

The following points will show how the Memorandum settled the disputed questions, and sought to meet the recommendations of the Select Committee on National Expenditure:—

(1) *Consideration of Programmes.*—The examination of the general demands made upon the Ministry was to be conducted "both by the departments of Munitions Requirements and Statistics and the Co-ordinating Committee in relation to—

- (a) balancing of related munitions and their components;
- (b) Ministry, War Office, and Air Ministry stocks;
- (c) other programmes;
- (d) current production;
- (e) general allocation of shipping tonnage and credits."

¹ See above, p. 150.

² Munitions Council/363.

³ The full text is given in the Appendix, p. 157.

There was no provision for financial criticism at this stage. The reasons for postponing it until the programmes of supply were drawn up have already been stated.¹

(2) *Allocation of Orders*.—Schemes for allocating orders, as between Home and overseas, and as between National Factories and private firms, were to be framed by Supply, in consultation with Requirements, and with the concurrence of Finance and Contracts, who were charged to examine such schemes, and, if necessary, adjust them with the Supply department.

(3) *Financial sanction for Contracts*.—The requirement of financial sanction for all contracts over a certain figure was dropped.² Sanction was to be required for—

“(a) contracts for which financial assistance is likely to be required, or which involve capital expenditure, loans or grants, or payments in advance of deliveries ;

“(b) Contracts to be placed abroad, or which involve direct or indirect payments in foreign currency ; . . .

“(c) contracts for the erection and management of National Factories.”

(4) *Capital Expenditure*.—The Finance department was also responsible for “financial approval of capital expenditure of all kinds, including housing, and for acquisition of property by purchase or under D.O.R.A.”

The functions of the Munitions Works Board were defined in General Memorandum No. 87.³

(5) *Responsibility for Prices*.—The Contracts department was charged (*inter alia*) with “conducting all negotiations (including the fixing of prices) with contractors, in conjunction, where necessary, with the Supply department.”

The Supply departments were to “assist the Contracts department” in such negotiations where necessary. In the case of a supply requiring special technical knowledge, the Controller of Contracts might delegate to a Supply officer the right to negotiate the contract on his behalf, subject to his final approval as to terms and price.

This arrangement introduced no change of the system already established.

On the other hand, the Supply departments were now to record and watch the contracts placed against their programmes and demands,

¹ See above, p. 119.

² It has been mentioned above (p. 104) that the Director of Contracts had long since pointed out that the mere value of a contract was not the proper test. Contracts of small value might involve important points of principle ; contracts of very large value might be mere continuations of bargains already approved.

³ See Vol. III., Part III.

and review them with an eye to other existing contracts, stocks, alteration of demand in quantity or design, late deliveries, or other modifying factors, notifying Contracts when modification or cancellation was required. To this extent the decentralisation of contracts work was provided for.

(6) *Differences between Finance, Contracts, and Supply* were to be referred by the department chiefly concerned to its Member of Council, who might submit the matter to the Co-ordinating Committee. For this purpose the Financial Secretary, as Chairman, and the Member of Council representing the Supply department concerned were to be added to the Committee.

(7) *Decentralisation of Accounts*.—The Accounts department was to consist of (a) a central organisation directly responsible to the Controller of Munitions Accounts; (b) decentralised officers appointed by the Controller of Munitions Accounts, but accommodated within the Supply departments and subordinate to the Supply Controllers as regards personal supervision and office control.

(a) The central organisation was to lay down the form of accounts to be kept by Supply, and conduct an internal audit of these accounts. It would prepare the Balance Sheet and Central Control accounts, and summarise the balances with each contractor as a whole, reporting on their general condition to Finance.

(b) The decentralised officers were to record and watch individual accounts with contractors, and ensure the collection of money from them for materials supplied or advances made, together with the prompt payment to the contractors for their supplies to the Ministry.

(8) *Decentralisation of Stores*. — The Stores department was similarly divided.

The central organisation was to lay down the form of Materials accounts to be kept by Supply, and the procedure to be followed in the movement of all material. It was also charged with all arrangements required in connection with contract storage; the control of Store depôts and the erection of new Stores; and the recording of stocks in Store depôts.

The decentralised officers were to keep the Materials accounts in the Supply departments, watch the stocks of stores, and arrange with the central organisation the allocation of material for storage.

With regard to the progress of decentralisation, it will be seen that in the case of Accounts and Stores the principle of administrative decentralisation was carried to the furthest point consistent with the reservation of functions which could only be performed by a central organisation. In the case of Contracts, on the other hand, there was no advance beyond the merely local decentralisation of Contracts sections, which had already been effected so far as accommodation permitted. The vital functions of an independent Contracts department were reserved to the central organisation.

This solution of the decentralisation problem must not be taken as final. It only marks the latest stage which the controversy happened to have reached when the cessation of hostilities caused a re-orientation of the whole work of the Department. Even in the case of Accounts and Stores it was not claimed that a perfect distribution of functions had been attained. In the case of Contracts, the conflict of opinions was not reconciled, and it cannot be doubted that further attempts would have been made to combine the Contracts functions with those of Supply.

APPENDIX.

(CHAPTER V., p. 153.)

General Memorandum, No. 134.—(21 October, 1918.)FUNCTIONS OF THE DEPARTMENTS OF THE MINISTRY OF MUNITIONS
IN RELATION TO REQUIREMENTS, FINANCE, SUPPLY, CONTRACTS,
STORES, ACCOUNTS, AND AUDIT.

The following Memorandum (which supersedes General Memoranda Nos. 61 and 71) defines the principles upon which the Departments of Requirements and Statistics, Finance, Supply, Contracts, Stores, Accounts, and Audit are to act and is circulated for the guidance of Heads of Departments.

DEPARTMENTS OF MUNITIONS REQUIREMENTS AND STATISTICS.

The Departments of Requirements and Statistics (D.M.R.S.) are responsible for :—

1. Examining the general demands made upon the Ministry by the War Office and other Government Departments and Allied Governments, and for authorising, on behalf of the Minister, the Supply and Materials Departments to take the necessary action to fulfil the requirements calculated to meet those general demands. The authorisation will be conveyed either in the form of Programmes or Spot Demands (as defined in Appendix "A").

The general demands will be examined both by the Departments of Munitions Requirements and Statistics and the Co-ordinating Committee in relation to :—

- (a) Balancing of related munitions and their components.
- (b) Ministry, War Office and Air Ministry Stocks.
- (c) Other Programmes.
- (d) Current production.
- (e) General allocation of shipping tonnage and credits.

The general allocation of orders between Home and Overseas required to meet the various programmes will be drawn up by D.M.R.S. in consultation with the Supply Departments in the light of the tonnage situation.

2. Combining, in consultation with the Materials Departments, the requirements of the Supply Departments of the Ministry and of other Government Departments into a Materials Programme, showing separately the Programme of production of materials at home and the purchase of materials from overseas, and for

presenting the programme in a form convenient to the proper Authorities responsible for the allocation of tonnage or credits amongst the various Government Departments.

3. Allocating in conjunction with the departments concerned the tonnage placed at the disposal of the Ministry of Munitions by the Shipping Controller, and preparing tonnage budgets for this purpose.

4. Forwarding, under their serial numbers, copies of all manufacturing and materials Programmes to the Finance and Contracts Departments at the same time as they are forwarded to the Supply Departments for action.

5. Recording, in relation to all programme requirements and demands, the progress of deliveries on account of each supply as notified to them by Supply Departments, and bringing to the attention of the Minister, Members of Council and Heads of Departments every statistical tendency of importance. In this connection the Departments of Munitions Requirements and Statistics should receive regular and early notification of all "limiting factors" which may be holding up any stage of supply.

FINANCE DEPARTMENT.

The Finance Department is responsible for :—

1. The preparation and criticism of financial estimates.
2. Financial approval of capital expenditure of all kinds, including housing and for acquisition of property by purchase or under D.O.R.A.
3. Financial sanction in the following classes of Contracts :—
 - (a) Contracts for which financial assistance is likely to be required, or which involve capital expenditure, loans or grants, or payments in advance of deliveries ;
 - (b) Contracts to be placed abroad, or which involve direct or indirect payments in foreign currency (as regards U.S.A. a reference to the American Department will cover a reference to the Finance Department) ;
 - (c) Contracts for the erection and management of National Factories.
4. Examining, and, if necessary, adjusting with the Supply and Contracts Departments the allocation of orders as between Home and Overseas and as between National Factories and Private Firms, proposed by Supply Departments.
5. Considering reports of Contractors' balances received from the Accounts Department, and taking such action as may be necessary upon them.
6. Considering claims for losses on account of departure from terms of contracts.
7. Writing off of cash or store losses.
8. Considering proposed royalties and rewards.
9. Obtaining Treasury sanction where necessary.

MUNITIONS WORKS BOARD.

The functions of the Munitions Works Board are set out in General Memorandum No. 87.

SUPPLY (INCLUDING MATERIALS) DEPARTMENTS.

The Supply Departments are responsible for :—

1. Fulfilling the programmes and spot demands authorised by the D.M.R.S.

2. Framing, with the concurrence of the Finance and Contracts Departments, the specific allocation of orders, as between Home and Overseas and as between National Factories and Private Firms.

3. Recommending to the Contracts Department, in the case of supplies to be obtained at home, the firms with which and the quantities for which contracts should be placed.

4. Advising the Finance and Overseas Transport Departments in the case of individual orders proposed to be placed abroad, with a view to determining whether credits and shipping tonnage will be available.

5. Satisfying, where necessary, the Contracts, Finance and Overseas Transport Departments that their proposals are in accordance with (a) the approved programme for the particular supply concerned and (b) the general allocation of tonnage and credits.

6. Assisting the Contracts Department, where necessary, in the negotiation of contracts. In the case of a supply requiring special technical knowledge, the Controller of Munitions Contracts may delegate to a Supply officer the right to negotiate the contract on his behalf, subject to his final approval as to terms and price.

7. Maintaining adequate watch over the economical use of materials delivered to contractors to enable supply to be made on individual contracts, and ensuring that the material supplied bears a fair relation to the finished goods received.

This duty rests primarily upon those Supply Departments charged with the supply of Munitions (as distinct from Materials), who will be responsible for authorising the issue of reasonable and necessary quantities of materials by the Materials Supply Departments and for arranging for the variation of supplies of materials, in accordance with the manufacturing needs of individual firms.

8. Recording contracts placed against the respective programmes and demands, and watching the proper fulfilment of the contracts.

9. Reviewing contracts placed in relation to other existing contracts, stocks, alteration of demand in quantity or design, late deliveries or other modifying factors, and notifying the Contracts Department in cases where an existing contract should be modified or cancelled.

10. Recording and watching individual accounts with contractors and ensuring the collection of money from them for materials supplied or advances made, together with the prompt payment to them for their supplies to the Ministry.

This duty will be discharged through the Accounts Officers of the Controller of Munitions Accounts attached to the Supply Department.

11. Watching the materials accounts and stocks of stores, and arranging with the Central Stores Department for the allocation of storage.

This duty will be discharged through the Stores Officers of the Controller of Stores attached to the Supply Department.

12. Ensuring, where charged with the administration of National Factories, that the system of accounting prescribed by the the Controller of Factory Audit and Costs is properly carried out by the factory management; that the books are kept up-to-date; that an adequate control is maintained on the receipt and issue of material and components; that an accurate record of production is obtained, and that the periodical accounts required by the Treasury are prepared promptly.

13. Personal supervision and office control of all staff engaged on accounts and stores duties within the Supply Department.

CONTRACTS DEPARTMENT.

The Contracts Department is responsible for :—

1. Examining and, if necessary, adjusting with the Supply and Finance Departments, the allocations of orders as between Home and Overseas and as between National Factories and Private Firms proposed by the Supply Departments.

2. Distributing the home orders between contracting firms, in close consultation with Supply Departments.

3. Deciding the general terms and form of clauses in all contracts.

4. Conducting all negotiations (including the fixing of prices) with contractors in conjunction, where necessary, with the Supply Department.

5. Obtaining financial sanction, where necessary.

6. Concluding all home contracts (together with any subsequent modification or cancellation), and notifying the Departments concerned.

7. The investigation and estimating by accountants and technical officers of costs of production (excluding National Factories).

8. Notifying the Accounts Department of any cases in which, owing to the curtailment of programmes or other causes, it may be necessary to reduce substantially supplies under any contract, or to

terminate a contract before its completion, in order that the state of the contractor's accounts may be considered before action is taken.

9. Contracts in Canada are dealt with by the Imperial Munitions Board, and in the United States by the British War Mission, through the American Department of the Ministry. Contracts in France and Switzerland will be dealt with in accordance with General Memorandum No. 81.

DIFFERENCE BETWEEN FINANCE, CONTRACTS OR SUPPLY DEPARTMENTS.

In the event of any difference arising which may affect the Finance, Contracts, or Supply Departments, the matter shall be referred by the Department chiefly concerned to its Member of Council, who, if necessary, will submit the matter to the Co-ordinating Committee. For this purpose there shall be added to that Committee the Financial Secretary as Chairman and also the Member of Council representing the Supply Department concerned.

ACCOUNTS DEPARTMENT.

The Controller of Munitions Accounts is responsible for :—

1. Laying down the form of Accounts to be kept in the Supply Departments.
2. Conducting an internal audit of these Accounts.
3. The Balance Sheet and Central Control Accounts.
4. Summarising the balances with each Contractor as a whole and reporting on their general condition to the Finance Department.

The staff of the Controller of Munitions Accounts consists of :—

(a) Central organisation directly responsible to the Controller of Munitions Accounts for the purpose of carrying out the above duties ; and

(b) Decentralised Accounts Officers appointed by the Controller of Munitions Accounts (but accommodated within the Supply Department and subordinate to the Controller of the Supply Departments as regards personal supervision and Office control) who will be responsible for keeping the financial records and reporting the state of the accounts with Contractors, as provided for in paragraph 10 of the functions of Supply Departments.

FACTORY AUDIT AND COSTS ACCOUNTS.

The Factory Audit and Costs Department is responsible for :—

1. Auditing the accounts of National Factories, Mines, Quarries, Canteens, and Housing schemes, and for the organisation and provision of their Cost Accounts.

2. Auditing the accounts of Store Depôts, the Royal Ordnance Factories, and Capital expenditure in connection with assisted Contracts.

3. Furnishing a monthly statement to the Finance, Contracts, and Supply Departments on the National Factories, which should include the following information :—

(A) For each National Factory working :—

- (a) Name of Factory.
- (b) Cost of Factory.
- (c) Maximum capacity for which designed or re-designed.
- (d) Current output.
- (e) Most recent cost per unit of output.

Information in respect of each National Factory under construction will be obtained by the Controller of Commercial Finance, in conjunction, where necessary, with M.W.B., and will show :—

- (a) Name of Factory.
- (b) Approximate cost of Factory.
- (c) Maximum capacity for which designed.
- (d) State of progress.

STORES DEPARTMENT.

The Controller of Stores is responsible for :—

1. The form of Materials Accounts to be kept in the Supply Department and the procedure to be followed in the movement of all material.
2. All arrangements required in connection with contract storage.
3. The control of store depôts and the erection of new stores.
4. Recording Stocks in store depôts.

The staff of the Controller of Stores consists of :—

(a) Central organisation directly responsible to the Controller of Stores for the purpose of carrying out the above duties ; and

(b) Decentralised Stores Officers and Staff appointed by the Controller of Stores (but accommodated within the Supply Department and subordinate to the Controller of the Supply Department as regards personal supervision and office control). This staff is responsible for keeping the Materials Accounts and for arranging with the Central Organisation the allocation of material for storage.

APPENDIX "A."

The following give the definitions of the terms "Programmes" and "Spot Demands."

(a) PROGRAMMES—

1. "*Establishment Programmes*" are those for the provision or maintenance in the field of a given establishment, put forward by a Government Department and agreed upon as a basis of action by the Ministry.

2. "*Manufacturing Programmes*" are those which are authorised and passed to Supply Departments for action. They are subdivided as follows:—

(i) "*Principal Manufacturing Programmes*," e.g., Main Shell Manufacturing and Filling Programmes, New Gun Programmes, New Aeroplane Programme, New Tank Programme, etc.

(ii) "*Component Programmes*," e.g., Fuze Programmes, Cartridge Case Programmes, Fuze Sockets, Bullets, Engine Programmes for Tanks, Recuperator Programmes.

(iii) "*Repair Programmes*," e.g., Gun Repair, Carriage Repair, Machine Gun Repair, Aero-Engine Repair.

(iv) "*Spares Programmes*," Aero-Engine Spares, Gun Carriage Spares, Machine Gun Spares.

(v) "*Details Programmes*" are those for details required to replace wastage during inspection, proof or testing of Manufactured Stores while in the charge of the Ministry of Munitions.

3. "*Materials Forecasts and Programme*."—Each manufacturing Programme carries with it a Materials Forecast, and these individual Forecasts (for the Ministry of Munitions and other Government Departments) form collectively the "*Materials Programme*."

(b) SPOT DEMANDS—

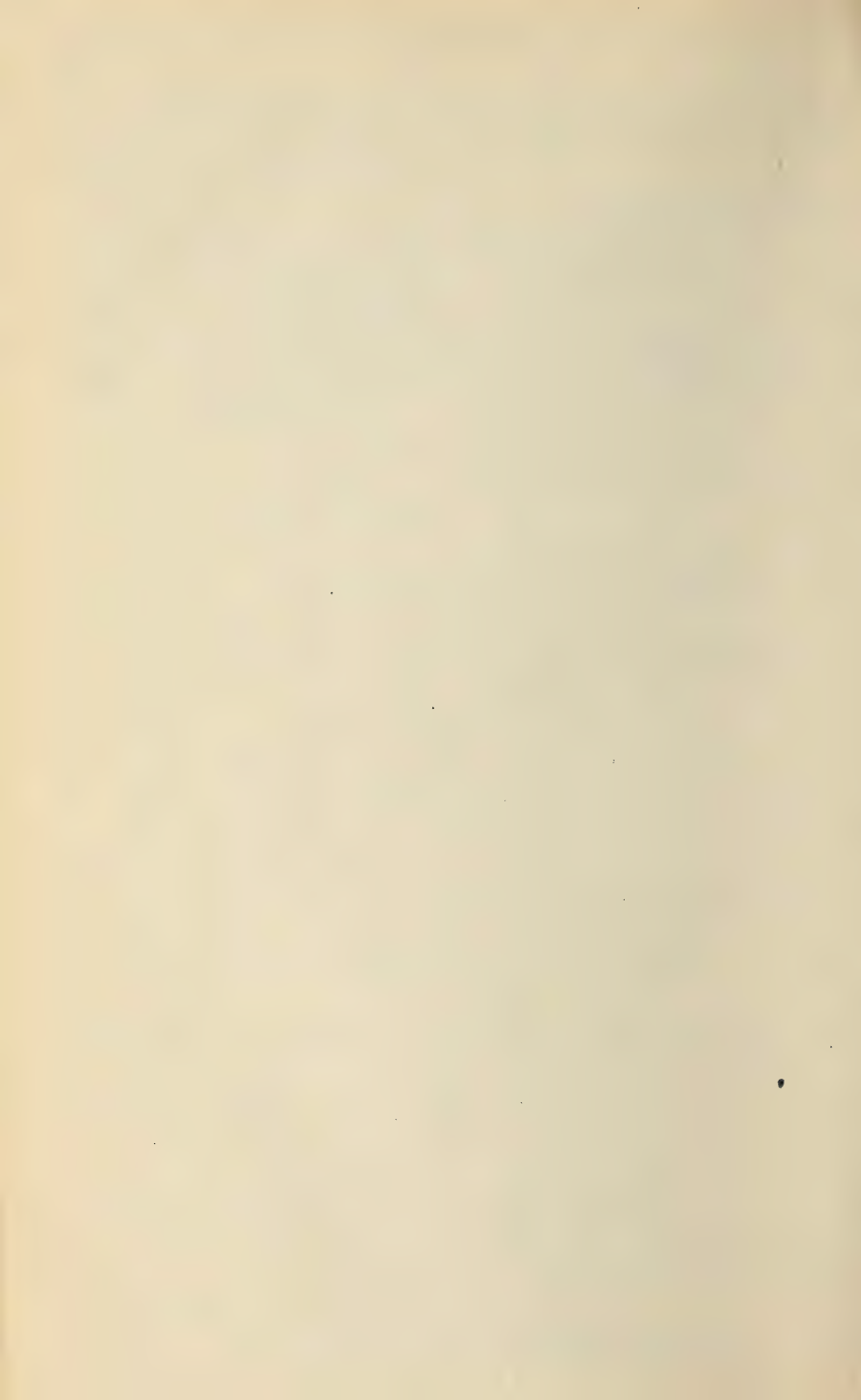
Spot demands consist of requirements which absorb only small quantities of materials, make only small demands on manufacturing capacity, and cannot be related to any existing running programme. Manufacturing and Materials Programmes are not required for Spot Demands.

INDEX.

- ACCOUNTING OFFICER—
 Duties of 9, 26
 Sir Charles Harris 16
 Mr. Dannreuther 16, 97
 Mr. S. H. Lever 20, 23
 Sir John Mann 49
- ACCOUNTS—
 Bookkeeping, 44, 48, 60, 62, 80, 87
 Reorganisation of 48 ff.
 Balance sheet 81, 82, 89, 91
- ACCOUNTS, CONTROLLERS OF . . . 128
- ACCOUNTS, DIRECTOR OF—
 Mr. Barrow 6
- ACCOUNTS, PUBLIC, Form of, 41, 48, 81
- ACCOUNTS DEPARTMENT 40, 50
 Staff 45, 46
 Functions of 70
 Central Accounts Branch 84
 Status of 125
 Decentralisation of 140, 151, 155
- ADDISON, Dr. 20 ff, 48, 94
- ADMIRALTY—
 Emergency Committee 2
- ADVANCES TO CONTRACTORS . . . 44, 61
- ADVISORY COMMITTEE—
 Reference No. 20 53
 Reference No. 29 59
 Reference No. 30 64
- ARMAMENTS OUTPUT COMMITTEE, 13, 17, 18
- ASSISTANT FINANCIAL SECRETARY—
 Mr. Lever 22
 Mr. John Mann 49
 Post abolished 97
 Mr. Dannreuther 129
 Mr. Guy 129
 Sir P. Henriques 129
- BARROW, Mr. Oscar, 16, 50, 60, 105, 115
- BLACK, Sir Frederick 36
- CAPITAL EXPENDITURE, 6, 20, 23, 101, 154
- CENTRAL INVOICING SECTION, 39, 74
- CENTRAL STORES BRANCH, 52 ff, 75, 133
- Decentralisation of 155
- CHURCHILL, Mr. W. S., 11, 91, 93, 101
- COMMERCIAL FINANCE, CONTROLLER OF—
 Mr. H. Guedalla 129
- COMMISSION ON ORGANISATION, 104, 135
- COMPTROLLER AND AUDITOR-GENERAL, 77, 85, 90, 92
 Report of (1916-17) 55
- CONTRACT PRICES—
 Power to vary 4
 Responsibility for, 13, 21, 26, 49, 65, 103, 109, 111, 144, 154
- CONTRACTS—
 Treasury supervision of 7
 Financial sanction for, 22, 25, 154
 Proposed Member of Council for, 101
 Proposed Inspector of 146, 150
- CONTRACTS, CONTROLLER OF—
 Mr. John Mann 97
- CONTRACTS, DIRECTOR OF—
 Mr. Hanson 17
 Responsibility of, 26, 65, 67, 108
- CONTRACTS DEPARTMENT—
 Relations to Supply and Finance, 13, 17, 22, 25, 65 ff., 103 ff.
 Transfer from War Office 17
 Acts as supply department, 18, 104
 Decentralisation of, 62, 66, 104, 132
- CONTRACTS FINANCE 49
- CONTROLLED ESTABLISHMENTS DIVISION 49
- COST ACCOUNTING 21, 23
- COUNCIL COMMITTEE, No. 33, 107
- DANNREUTHER, Sir S., 4, 15, 16, 35, 42, 50, 60, 97, 115, 129
- DECENTRALISATION 131 ff.
 Meaning of 131
 Proposals for 135 ff
 Committee on 148
- DEMAND—
 Separation from Supply 12
- DEMANDS—
 Responsibility for 112 ff
- DEPARTMENTAL FINANCE, CONTROLLER OF—
 Mr. A. E. Watson 129
- DUCKHAM, Mr. Alexander 57n, 114, 137, 142.
- DUCKHAM, Mr. Arthur 84, 106
- EMERGENCY COMMITTEE—
 Admiralty 2
 Ministry of Munitions 4
- ESTIMATES 2, 5
- EXCESS PROFITS 6
- EXPLOSIVES SUPPLY DEPARTMENT, 17, 23, 35, 43, 52

- FINANCE, DIRECTOR OF—
 Mr. Dannreuther 16
- FINANCE OF MINISTRY OF MUNITIONS—
 Separation from War Office, 3, 16, 20
 Powers of Minister 3
- FINANCE BOARD 50
- FINANCE COMMITTEE 129
- FINANCE COMMITTEE ON ECONOMY,
 24, 50, 63
- FINANCE DEPARTMENT—
 Relation to Contracts and Supply,
 13, 18, 22, 25, 56, 65 ff, 103 ff.
 Transfer from War Office 14
 Organisation 42, 50, 58, 129
- FINANCE GROUP 96
- FINANCE MEMBER OF COUNCIL, 96, 99,
 100, 117, 128
- FINANCIAL ADVISORY COMMITTEE, 63,
 94, 104.
- FINANCIAL SECRETARY, 20, 49, 96,
 98, 129
- FINANCIAL SECRETARY'S STANDING
 COMMITTEE 99
- GARNSEY, Mr. 50, 72, 128, *passim*
- GEDDES, Mr. E. 20, 21, 22
- GENERAL MEMORANDUM—
 No. 21 (18/8/17) 96
 No. 61 (22/2/18), 107n, 109, 117, 128,
 142, 148
 No. 71 (4/4/18) 123, 148
 No. 87 154
 No. 105 (4/7/18) 129
 No. 133 (21/10/18) 129
 No. 134 (21/10/18), 125, 148 ff, 153,
 text, 157
- GENERAL OFFICE NOTICE—
 No. 11 (29/4/16) 24, 69n
- GENERAL PROCEDURE MINUTE—
 No. 88 (28/3/17) 54
 No. 92 (4/4/17) 66, 110
 No. 93 (6/4/17) 72
- GEORGE, Mr. Lloyd 21, 22
- GUY, Mr. J. H., 50, 72, 128, 129, *passim*
- HALDANE, Lord 14
- HAMBLING, Mr. H., 64, 96, 99, 101, 106
- HANSON, Mr. P. 17, 66, 67, 104
- HARRIS, Sir Charles. 15, 16
- HENRIQUES, Mr. P. 50, 107, 129
- HUNTER, Mr. John 67, 102
- HYDE, Sir Clarendon 64
- IMPERIAL MUNITIONS BOARD 55
- INTERNAL AUDIT 48, 63, 70 ff
- ISSUE WARRANTS—
 Registry of 55
- JENKINSON, Mr. Webster, 50, 106, 129
- JUDD, Mr. T. L. 73, 91
- KELLAWAY, Mr. 129, 151, 153
- LABOUR FINANCE, CONTROLLER OF—
 Mr. G. H. Duckworth 129
- LEVER, Mr. S. H., 20 ff, 36, 39, 40,
 47, 49, 52, 65
- MANN, Mr. John, 24, 49, 53, 62n, 64,
 68, 96, 97, 115, 144, 147
- MATERIALS—
 Issue of 39 ff
 Uncharged 73, 78
 Economy of 76
- METAL ACCOUNTANCY SECTION 76
- MIDDLETON, Mr. Lambert 43 ff
- MILMAN, Colonel 56
- MINISTRY OF MUNITIONS—
 Vote 16, 23, 86
- MOIR, Sir E. 84
- MUNITIONS COUNCIL 93
- MUNITIONS TRIBUNALS 16
- MUNITIONS WORKS BOARD 50, 102
- NATIONAL FACTORIES 120, 154
- ORDNANCE FACTORIES 16
- ORGANISATION COMMISSION 57
- PALMER, Mr. Frederick, 24, 50, 97
- PORT FORWARDING BRANCH 56
- PRICES, CONTRACT—
See CONTRACT PRICES.
- PROFITS—
 Rates of 7
- PROGRAMME COMMITTEES 124
- PROGRAMMES—
 Of demand 13, 112, 153
 Of supply 119
- RECONCILIATION COMMITTEE 70
- REQUIREMENTS AND STATISTICS,
 DIRECTOR OF 117
- ROGER, Sir Alexander 64
- ROTHSCHILD, Hon. N. C. 24, 64
- SELECT COMMITTEE ON NATIONAL EX-
 PENDITURE 5, 85, 93
 Report I. (1917), 5, 7, 97, 101, 117,
 120, 125
 Report II. (1917) 7
 Report I. (1918), 99, 102, 111, 118,
 121, 128
 Report VII. (1918) 85, 87
- SMALL ARMS CARTRIDGE 30
- SMITH, Mr. Allan 57n
- SMITH, Mr. H. Owen 64, 97
- SMITH, Mr. J. Masterton 148
- SPECIAL INVESTIGATION SECTION, 91
- STAFF INVESTIGATION COMMITTEE, 142,
 150
- STORAGE 34 ff
- STORE AUDIT DEPARTMENT 52

STORES ACCOUNTANT, CHIEF, 36, 51, 52, 56	Treasury Minutes— <i>contd.</i>
STORES ORGANISATION . . 32 ff, 52 ff	8 December, 1914 2
STORES RECORDS, 20, 28 ff, 36 ff, 52, 92.	29 January, 1915 2
SUPPLY—	24 January, 1916 3, 5
Separated from Demand . . . 12	TRENCH WARFARE DEPARTMENT 17, 23, 43, 52
SUPPLY DEPARTMENTS—	WAR MUNITIONS VOLUNTEERS . 16
Relations to Contracts and Finance	WAR OFFICE—
Departments, 13, 18, 56, 67	Finance Department . . . 9, 14
Transfer from War Office . . 17	Demands 12, 112
	Contracts Department . . . 17
TREASURY—	WATSON, Mr. A. E., 30, 43, 50, 51, 129
Financial Control. 1 ff	WOOLWICH ARSENAL 35
Sanction abrogated 2	WORTHINGTON EVANS, Sir L., 49, 84, 91, 99, 108, 112, 145
TREASURY MINUTES—	
20 August, 1914 2	



CONFIDENTIAL.

For Official Information only.

^A
Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS

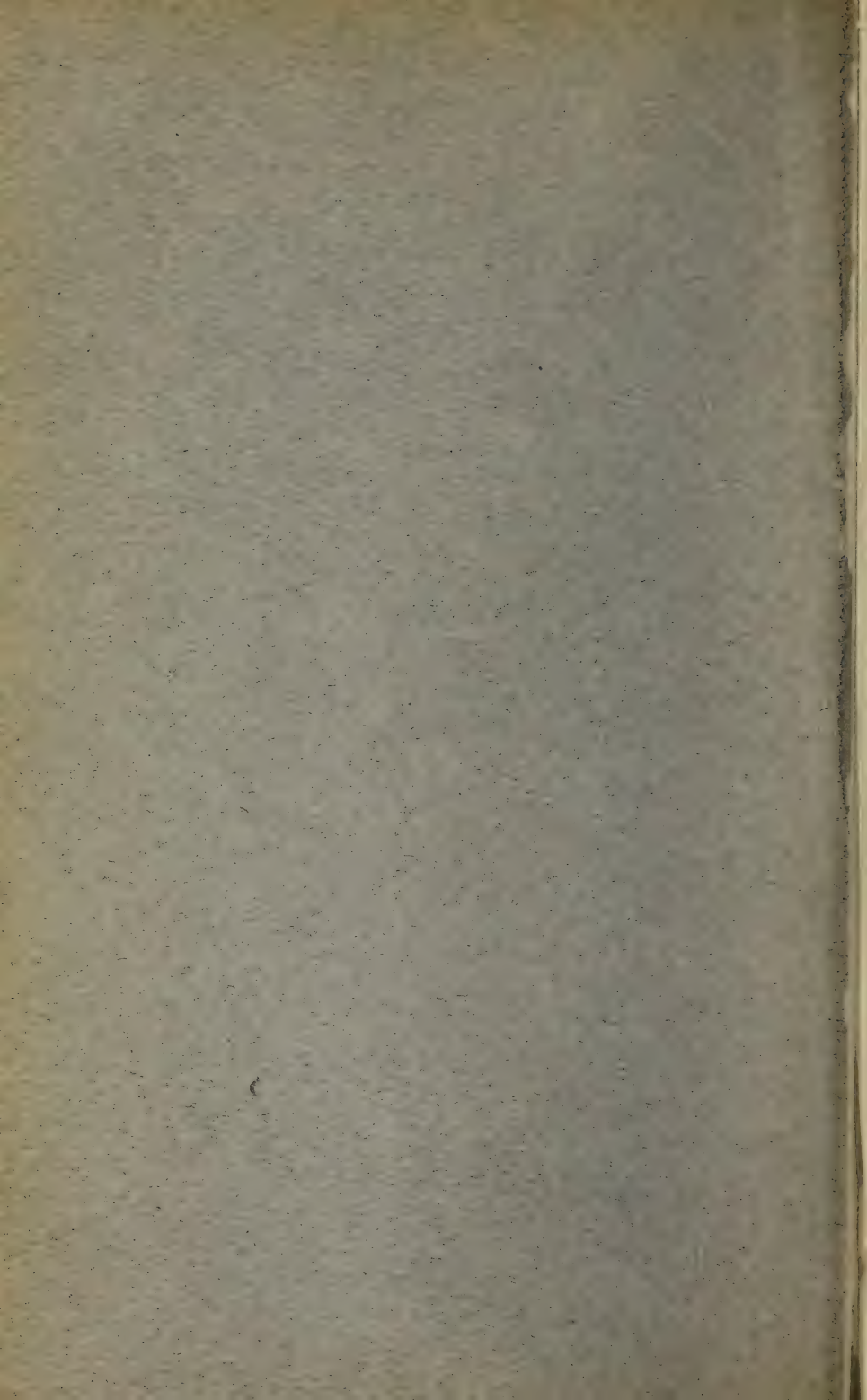
VOLUME III

FINANCE AND CONTRACTS

PART II

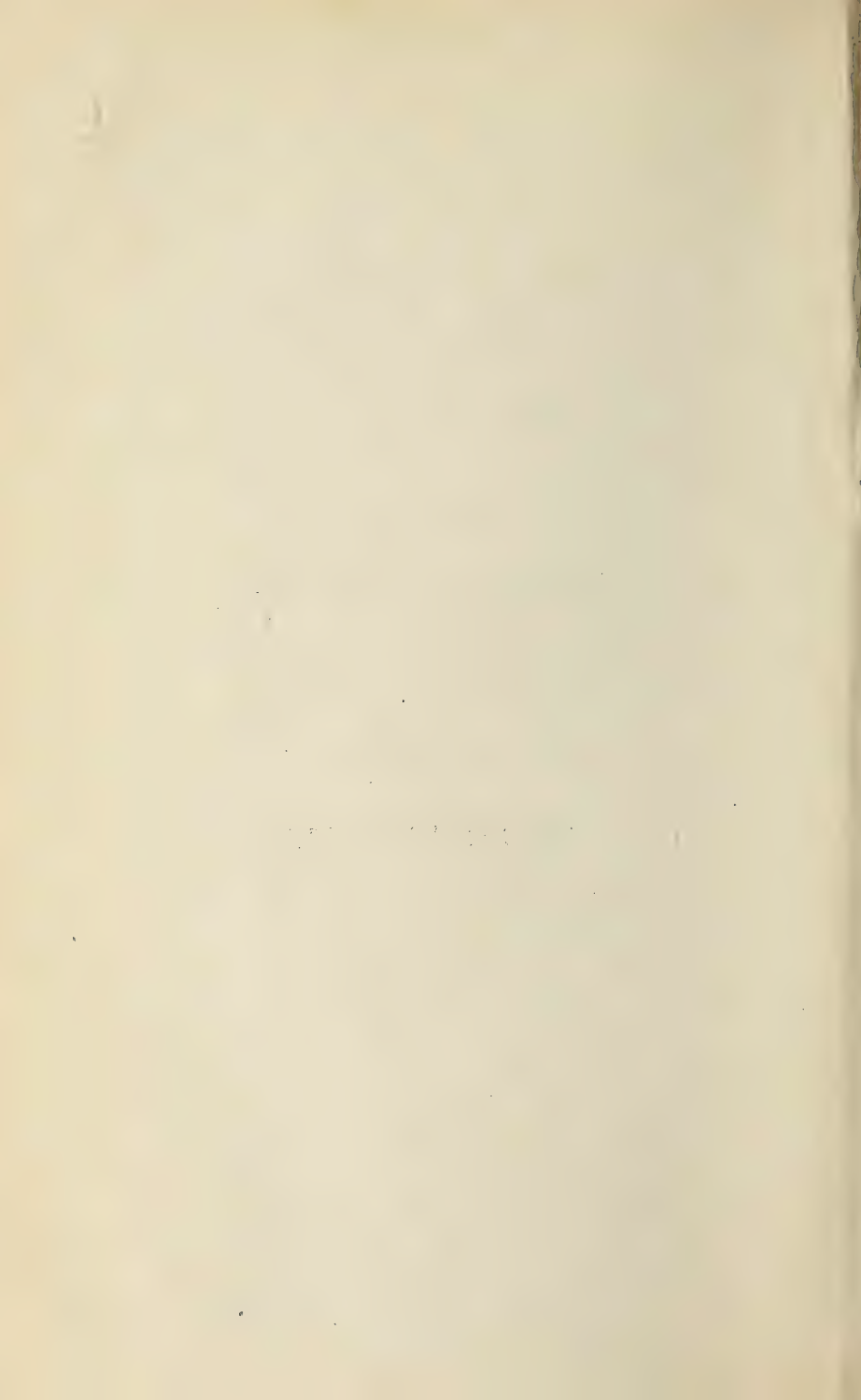
CONTRACTS





VOLUME III
FINANCE AND CONTRACTS

PART II
CONTRACTS



CONTENTS.

CHAPTER I.

The Fixing of Prices.

	PAGE
1. Introductory : The Problem of Reasonable Prices ..	1
2. Legal Powers bearing on Prices	3
3. Methods of Ascertaining Costs	10
4. Types of Cost-basis Contracts	15
5. Rates of Profit	25

CHAPTER II.

Cost Investigations and the Reduction of Prices.

1. The Reduction of Shell Prices	36
2. Negotiations with the Armament Firms	44
3. Opposition of Contractors to Cost Investigations ..	52
4. Report I (1918) of the Select Committee on National Expenditure	57
5. Report II of the Colwyn Committee	60

CHAPTER III.

Cost Variation Clauses.

1. Introductory	64
2. Claims for Revision of War Office Contracts owing to War Conditions	65
3. Appointment and Reports I and II of the Departmental Contracts Committee	70
4. Clauses providing for Fluctuation of Prices	76
5. The Minister's Pledge to Boards of Management, 1 November, 1916	78
6. Extension of the Wages Clause to other than Board of Management Shell Contracts	82
7. Cost Variation Clauses, M.C. 17, 18 and 19	91
8. Proposal for Payment by a Single Government Authority regulating Wages	100
9. The Ministry's Final Policy	106

CHAPTER IV.

Break Clauses.

	PAGE
1. Introductory	112
2. The Standard War Break Clause	114
3. Exceptions to the Standard Clause	118
4. Definition of the "Termination of the War"	123
5. Classification of Contracts with a view to the application of the Break Clause	125
6. Report of the Financial Advisory Committee	127
7. The Council Committee on Demobilisation and Reconstruction	131
8. Proposed non-War Break Clause	133
9. Procedure recommended for Termination on Cessation of Hostilities	134
10. Policy in the last weeks before the Armistice	138
11. The Liquidation of Contracts	141

CHAPTER V.

Central Purchase.

1. Introductory	144
2. Allotment of manufacturing capacity between the Admiralty and the Ministry	144
3. Early proposals for Central Purchase	146
4. The Joint Committee of Finance and Contracts Officers	147
5. Report of the Inchcape Committee	151
6. Appointment of the Colwyn Committee	154
7. Agency Contracts	155
8. The Ministry of Supply	157

APPENDICES.

1. Rates of Profit prevailing before and during the War	161
2. Cost Returns for National Shell Factories	168
3. Negotiations with direct contractors for the reduction of H.E. Shell Prices	170
4. Reduction of Shell Prices in Contracts with Armament Firms for the quarter April to June, 1917	172

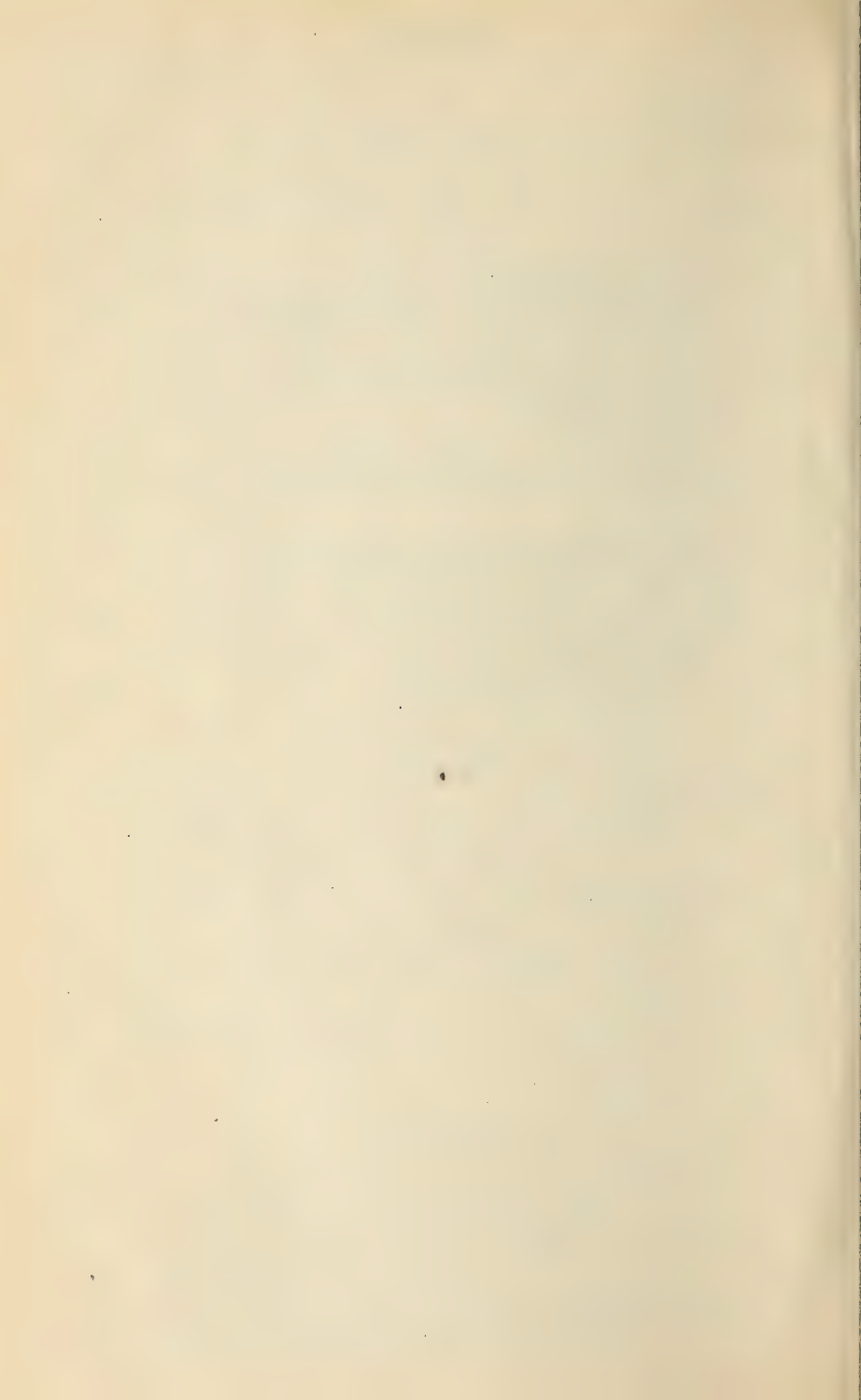
CONTENTS

v

	PAGE
5. Reduction of Prices on Gun Ammunition Estimates, 1917-18	173
6. Inquiry into the extent to which costing figures were used by the Contracts Department (April, 1917)	174
7. Rules for determining the effect of Wage Fluctuations on Price	176
8. Cost Variation Clause, M.C. 17	178
9. War Break Clause for Fuzes and similar Shell Components	181
10. War Break Clause for Fuzes, etc. (Armament Firms) ..	183
11. War Break Clause for Shell Contracts (Armament Firms)	185
12. War Break Clause for Gun and Howitzer Equipments (Armament Firms)	186
13. War Break Clause for Aircraft Contracts.. ..	189
14. Break Clause in the Standard Form of Assisted Contracts (M.C. 2)	192
15. War Break Clauses in some Agreements involving Capital Expenditure by the Contractor	193
16. Circular letter to Contractors, drawn up by the Finance Sub-Committee on Demobilisation, 24 October, 1918..	196
17. List of goods bought by more than one Department and action taken (2 February, 1918)	197

INDEX.

Index	199
---------------	-----



CHAPTER I.

THE FIXING OF PRICES.

I. Introductory : The Problem of Reasonable Prices.

In the preceding part of this volume, an account has been given of the controversy, which runs all through the history of financial control in the Ministry of Munitions, on the question whether there should or should not be an independent Contracts department. Stated in another form, the problem is : on what department—Supply, Contracts or Finance—should rest the responsibility for contract prices and the duty of safeguarding the economical expenditure of public money ? Under the earlier system, inaugurated by Mr. Lloyd George, responsibility for prices was vested, not in the Director of Contracts, but in the Assistant Financial Secretary¹. When Mr. Churchill had become Minister, this system, mainly owing to the appointment of Mr. John Mann as Controller of Contracts, and the agreement of the new Accounting Officer, Mr. Dannreuther, that Finance had no responsibility for price control, but partly also as a result of pressure from the Select Committee on National Expenditure, was changed. General Memorandum No. 61 (22nd February, 1918) made the Contracts department responsible “ for the prices and for terms of contracts.”² The principle was still more clearly affirmed in General Memorandum No. 134 (21st October, 1918), which included among the duties of the Contracts department “ conducting all negotiations (including the fixing of prices) with contractors, in conjunction, where necessary, with the Supply Department.”³ Thus the Ministry, after a temporary departure from the normal system of Government offices, reverted to the traditional doctrine that an independent Contracts department should uphold the distinct interest of economy. Finance is charged with the provision of funds, and with the duty of criticising, so far as circumstances admit, the estimates or programmes of expenditure. Supply has to provide the goods required. Between the two stands Contracts, whose proper function is to see that the money provided by Finance is laid out to the best advantage in the purchases proposed by Supply.

The recognition of this principle carries with it a decision of the problem of organisation : should the Contracts department be centralised or decentralised ? Throughout the existence of the Ministry, the internal structure of Contracts was based on the principle that “ the Contracts branches are sub-divided into sections arranged, as far as possible, so that each Supply section in the Ministry deals with only one Contracts section.”⁴ The exceptions were merely due to

¹ See Vol. III., Part I., p. 26.

² *Ibid.*, p. 109.

³ *Ibid.*, p. 160.

⁴ *Contracts Department Handbook* (March, 1918), Section IV.

accidental circumstances, which are of no permanent interest. When the Supply departments were rearranged into groups under Mr. Churchill's Munitions Council, the Contracts sections were grouped into corresponding branches.

This structural principle, the advantages of which were not open to question, made local decentralisation easy. The allied Supply and Contracts sections were housed, so far as accommodation permitted, under the same roofs. But the heads of the Contracts department successfully resisted the further administrative decentralisation which was introduced in Accounts and Stores. These departments were each finally divided into a centralised organisation directly responsible to their Controllers, and a series of decentralised staffs, which, though appointed by the Controllers of Accounts and Stores, were "accommodated within the Supply department and subordinate to the Controller of the Supply department as regards personal supervision."¹ The Contracts department was never so divided, because it was felt that the vital function of regulating prices and enforcing economy would in practice have passed out of the hands of the Controller of Contracts, who had to bear the responsibility.

Such were the principles which governed the position of the Contracts department in the Ministry. It is unnecessary to pursue further the details of organisation. The following chapters will deal with the essential Contracts function of fixing prices, and with certain other special problems which had to be faced by a Munitions Contract department in time of war.

The first is the problem how to secure reasonable contract prices. The normal system of buying for Government in time of peace is by competitive tender, as a rule among a limited number of firms considered capable of meeting requirements. During the War, the Contracts department of the Ministry of Munitions maintained this principle in all cases where it was possible to obtain effective competition; but, as time went on, it could be applied only to a very small fraction of the articles purchased. It became increasingly difficult to secure free competition. Demand, in almost all cases, exceeded supply; the number of firms available was generally so limited that they enjoyed a virtual monopoly, and groups of firms were able to combine for the purpose of keeping prices unduly high. In such circumstances, it was necessary to arrive, by some other method than competition, at reasonable prices, that is to say, prices representing the actual cost of manufacture on economical lines, together with a fair percentage of profit. The ideal method is to ascertain the costs of manufacture by examination of the contractor's books, and it was found indispensable that the Government should possess and exercise this power.² At

¹ General Memorandum 134, 21 October, 1918.

² On the other hand, it is doubtful whether the Government benefited by the powers (1) under D.O.R.A. to requisition output, and (2) under the Munitions of War Act to appoint inspectors with power to obtain any information. In many cases the Ministry was unwilling either to requisition output or to appoint inspectors, or to make an order under Regulation 15C, and had then no power to investigate costs.

first sight, it might seem that little more was required ; but there are serious difficulties still to be overcome.

In the first place, the final cost of production of an article, such as a shell, which has passed through a great number of processes, condenses in one total a long series of costs, stretching back to the original production of the various raw materials. At every stage there is a cost of production to be ascertained, and a rate of profit to be fixed ; the method must be carried right down to the roots. If the sub-contractors' costs and profits escape examination the main contractor's cost, however low his profit may be, will be swollen by these hidden excesses.

Secondly, if prices are to be based on costs, forms of contract must be devised which will not encourage manufacturers to increase their costs by extravagance or waste, but on the contrary provide a definite incentive to economy. If the profit represents a *percentage* of the costs, the inducement lies in the wrong direction.

Thirdly, when the basis of cost is settled, there still remains the very difficult question—what rates of profit are “reasonable” ? This is not, like the cost of production, a question of fact, but a matter of opinion, upon which the Government and the manufacturers may be expected to differ. It is, of course, an aspect of the great problem of preventing contractors from extorting exceptional profits in the emergency of war—a problem not completely solved by any form of Excess Profits Duty that was actually imposed.

II. Legal Powers bearing on Prices.

It will be convenient first to pass in review the legal powers enabling the Government to obtain war supplies at reasonable prices. This survey will not be confined to powers exercised by the Contracts department, but will include those which could be wielded by higher authorities, if that department, in its extremity, found it necessary to invoke them.

(a) POWERS TO TAKE POSSESSION OF, OR DIRECT THE WORK IN, FACTORIES.

One of the first needs of the Government in time of war is that it should have in reserve the means of preventing manufacturers from refusing to produce, at a price considered by the Government to be fair, articles that cannot be dispensed with, and turning over to other forms of work which hold out a promise of larger profits. This need was met by the powers (1) under Defence of the Realm Regulation 8 to take possession of factories, workshops, or plant and use them for Government purposes, and (2) under Regulation 8A, to require any work in any factory or workshop that was not actually taken possession of to be done in accordance with the directions of the War Departments. The first of these two measures was very seldom put into force, but the fact that it existed was enough to deter some contractors from turning aside to seek higher profits.

The second of the two, which, together with the power under Regulation 7 to requisition output, was the basis of the whole system of "Priority," was of great value. The limit would soon be reached of the numbers of private factories which the Government could conveniently "take possession of" and use for their own purposes; whereas it was a much simpler matter to requisition output or to direct what work was to be done in a factory, without displacing the management.

It will not be necessary here to refer further to these extreme powers. It is sufficient to note that the Government must possess them. Once they exist, it is recognised that the less said about them in contract negotiations the better.

(b) POWERS TO REQUISITION GOODS OR OUTPUT.

Under Regulation 2B, the Minister was empowered "to take possession of any war material . . . and stores of any description and of any articles required for or in connection with the production thereof." The price to be paid was, in default of agreement, decided by the Defence of the Realm Losses Commission.¹ In virtue of an amendment made on 15 February, 1916,² the tribunal, in determining the price to be paid for goods so taken, was not bound to consider the market price, but was to pay regard to the cost of production (or the price at which the person concerned had acquired the goods) and to the rate of profit usually earned in respect of similar goods before the War; and they might further consider whether this rate of profit was unreasonable or excessive.

Further, Regulation 7 gave power to the Minister by Order to require the occupier of any factory or workshop in which arms, ammunition, etc., or any article required for their production were manufactured to place at the disposal of the Minister the whole or any part of the output. In this case, the price, in default of agreement, was to be determined by a Judge of the High Court on the same principles as those laid down by Regulation 2B. Under the Munitions of War (Amendment) Act, 1916, the Minister could require the occupier to furnish any particulars with regard to the amount of the output, the cost of production, and the rate of profit usually earned before the War.

The Contracts department was instructed that powers under the Defence of the Realm Act and Regulations were to be exercised only with the greatest discretion, and that, in negotiations with contractors, any reference to them should be avoided.³ In certain cases where a contractor proved unreasonable and declined to accept an urgent order, he was asked to submit a resolution, passed by the directors of his company, declining to carry out the work on the ground that the price was insufficient. The Controller of Munitions Contracts in

¹ See Vol. I., Part II., p. 66.

² Under the Munitions of War (Amendment) Act, 1916. See below, p. 6.

³ *Contracts Department Handbook* (March, 1918), Section 564.

November, 1917, informed the Select Committee on National Expenditure that rarely, if ever, had such a resolution been passed. In only one or two instances had the Minister been compelled to exercise the power of requisitioning output under the Act; but the knowledge that such power existed had been of great use.

(c) MAXIMUM PRICES UNDER CONTROL ORDERS.

Under Regulation 2E, the Minister could regulate by Order the purchase, sale, etc., of war material or of any article required for the production thereof, and compel the sale of it on the terms mentioned in the Order.

Regulations 30A and 30B prohibited dealing in certain war material and metals without the permission of the Minister.

In order to reduce or prevent inflation of prices for materials, such as iron, steel, copper, flax, chemicals, timber, etc., in which the Ministry was interested not only as a direct purchaser, but also indirectly as a purchaser of articles manufactured from these materials, it was necessary to control the market prices. The inflation resulted from the urgent demands of manufacturers. Some could not resist the increase; others had no incentive to do so in the early days because they themselves received high prices, and later owing to the incidence of the Munitions Levy and Excess Profits Duty, under which the increased cost came mostly out of excess profits belonging to the Government. Maximum prices were therefore fixed for the most important articles.

Maximum prices for manufactured or partly manufactured articles were arrived at in some cases by a species of collective bargaining with a group of manufacturers. Owing to the disparity in costs due to different methods of manufacture and different types of equipment, a uniform price which yielded a fair profit to the less efficient maker yielded too high a profit to his better equipped competitor. In 1917 the plan was adopted of lowering the level of price, and, where a full production was essential, compensating the less favourably situated makers by means of a grant.

(d) POWER TO INSPECT CONTRACTORS' BOOKS.

As early as June, 1915, the War Office had begun to require manufacturers, in submitting their prices on tenders, to justify those prices by a statement of the costs of manufacture, and, where these were clearly exorbitant, negotiations were entered into for reduction of prices.¹

A regular procedure had developed in the Ministry, and in August, 1915, Mr. Lever was asked to form a costs division for the purpose of installing costs systems in factories.² This work generally resulted in attempts to reduce contract prices by actual or threatened cost

¹ P.A.C. Report (1916), Para. 28, and Minutes of Mr. Wintour's evidence. Qu. 2992.

² See below, p. 12.

investigations. The method was legalised by Section 16 of the Munitions of War (Amendment) Act, 1916, which read as follows :—

“(1) In sub-section (1) of Section 11 of the principal Act, which specifies the matters in respect of which owners of establishments in which persons are employed are, if required by the Minister of Munitions, to give information, the following paragraph shall be inserted after paragraph (c) :—

(cc) The cost of production of the articles produced or dealt with in the establishment, and the cost of the materials used for such production, and the names and addresses of the persons by whom such materials were supplied, or who are under contract to supply them.”

(2) (A clause providing penalties, “if any person, except as authorised by the Minister of Munitions, discloses or makes use of any information” so furnished.)

Later, cost investigations were carried out under Regulation 15c, which empowered the Minister by Order to require any person engaged in the production, manufacture, purchase, sale, distribution, transport, storage, or shipment of war material or stores of any description, or of any article required for the production thereof, “to give such particulars of his business as may be specified in the Order.” The Minister might “require any such particulars to be verified” as he might direct.

In June, 1918, the Ministry of Reconstruction invited the Departments to express their opinions on the continuance of emergency legislation after the War. In a memorandum furnished by the Ministry of Munitions¹ it was pointed out that many cost investigations which were proceeding under Regulation 15c, could not be terminated for long periods, and it would be necessary to retain the powers. “Further, although doubtless a very wide question of policy is opened up, it is, in the opinion of the Ministry of Munitions, worthy of serious consideration, whether the right of the Government to investigate costs and adjust prices of stores required by them should not be made permanent, if for no other reason than as a necessary corrective to excessive prices which might otherwise be charged by the Trusts which are at present growing up under Government approval.”

(e) POWER TO MODIFY SUB-CONTRACTS.

The Joint Committee on Cost Investigations² (representing the Admiralty, the War Office, the Aeronautical Department, and the Ministry of Munitions), towards the end of 1916 took into consideration the difficulty of preventing the payment of unduly high prices to sub-contractors. Examination of the principal contractors' expenditure gave no control over the basis of prices to sub-contractors. Moreover, some power of action was specially needed in cases where the principal contractor's price was not fixed when the contract was made, but was left to be determined later or depended in any way on the amount of his expenditure.

¹ M/Demob./66, 19 July, 1918.

² For this Committee, see below, p. 54.

The Committee recommended¹ that powers of investigation and surcharge should be obtained by a Regulation under the Defence of the Realm Act. Three draft Regulations were considered.

Draft A, submitted by the Admiralty, contained power to open up and alter any contract, whether at a fixed price or otherwise, including contracts made directly with the Department as well as sub-contracts made with or without the approval of the Department. The legal department of the Ministry advised that this would be *ultra vires*; and in any case the Committee considered that it would be too drastic and would undermine the basis of all Government contracts.

Draft B, submitted by the War Office, dealt only with sub-contractors' prices, but, in the opinion of the Ministry's representatives, required still further limitation, so as to exclude contracts at prices fixed when the contract was made.

Draft C embodied the views of the Ministry's representatives. It contained the minimum powers which all three Departments agreed it was desirable to obtain. The chief modifications were: (1) That its operation was confined to contracts for which prices were not definitely fixed when the contract was made, or when the output was requisitioned; (2) that it included all sub-contractors, however remote from the principal contractor. The Ministry's legal adviser suggested that the Regulation should be confined to sub-contracts under which goods remained to be delivered. Within these limits, the proposed Regulation empowered the Departments to order fulfilment of the contract on such terms as they might consider fair and reasonable, in substitution for the terms contained in the sub-contract. If the sub-contractor did not agree, recourse was to be had to arbitration in the manner provided in the case of requisitions under Regulation 7.

The legal advisers of the Ministry thought that the object could be obtained by the insertion of a similar provision in the contracts. The Committee, however, considered that a Regulation would have the advantage of binding all sub-contractors, whether or not the main contractor should have given notice when placing the sub-contract, and further that it would apply to any sub-contracts placed after the date of the Regulation under principal contracts at present running, and would thus take effect more promptly.

The Assistant Financial Secretary and the Director-General of Munitions Supply agreed that Draft C went far enough, and that wider powers to open up contracts or prices which had already been fixed, would cause weakness in the making of contracts. Draft C was approved by the Minister on 4 February, 1917.

After further discussion with the Admiralty and War Office, the Minister agreed, on 5 April, 1917, that the Order should not, as originally recommended by the Assistant Financial Secretary, be confined to sub-contractors following up a principal contract on a cost and percentage basis, but should be made applicable to all contracts entered into after the date of the Order.

¹ Memorandum dated 11 January, 1917. 94/Gen./954.

A further limitation was suggested by the Advisory Committee on Army Contracts,¹ who objected that the proposed Regulation would make it possible to re-open a sub-contract at any length of time after completion. The sub-contractor would have no security, even after he had closed his books and distributed profits, that he might not be called upon to refund. It was agreed to insert a time limit of 12 months.

Regulation 2BB was promulgated by Order in Council dated 13 June, 1917. The final form of the Regulation was as follows :—

“ Where the Admiralty, Army Council or Air Council or the Minister of Munitions have entered into a contract with any person (hereinafter referred to as ‘ the principal contractor ’) for the supply to them of any goods or services, and for the purposes of such contract a sub-contract has after the thirtieth day of June, nineteen hundred and seventeen, been made with any other person (whether such sub-contract is made with the principal contractor or any sub-contractor) and it appears to the Admiralty, Army Council or Air Council or the Minister of Munitions that the rate of profit earned or to be earned by the sub-contractor in respect of the sub-contract is unreasonable or excessive, the Admiralty, Army Council or Air Council or the Minister of Munitions may (whether or not the sub-contract has been completed) issue a certificate to that effect and may by order vary the terms of the sub-contract by the substitution therefor of such terms as they may think fair and reasonable and require the sub-contractor :—

(a) to carry out the sub-contract in whole or in part in accordance with the terms as so varied ; and

(b) either in addition thereto or as an alternative therefor to adjust the price of any goods already supplied or any services already rendered in accordance with the terms so varied, and to account to the other party to the sub-contract for any consequential reduction in price : Provided that no order made under this regulation shall affect the price of any goods supplied or services rendered under any sub-contract where the sub-contract had been completed and the payment has been made more than one year before the date of the order.

“ If any sub-contractor in respect of whom such an order is made fails to comply with any of the requirements contained in the order, he shall be guilty of an offence against these regulations :

“ Provided that if the sub-contractor does not agree to the terms fixed by the Admiralty, Army Council or Air Council or the Minister of Munitions, he may require the terms to be determined in the manner and in accordance with the principles prescribed by Regulation 2B, without prejudice however to his obligation in the meantime to comply with the terms of the order.

¹ Minutes of 39th meeting.

"In the event of the Admiralty, Army Council or Air Council or the Minister of Munitions exercising the powers conferred upon them by this regulation, the price payable by them to the principal contractor under the principal contract shall be reduced by such an amount not exceeding the amount of the saving to the principal contractor due to the exercise of such powers, as may be determined by the Admiralty, Army Council or Air Council or the Minister of Munitions.

"This regulation shall apply where the Admiralty, Army Council or Air Council or the Minister of Munitions have required the occupier of any factory or workshop to place at their disposal the whole or any part of the output of the factory or workshop as if the occupier had contracted with the Admiralty, Army Council or Air Council or the Minister of Munitions to supply such output or part thereof at the price payable therefor as ascertained in accordance with Regulation 7."

The advantages that were to be gained by the power to investigate prices paid to sub-contractors may be illustrated from a case mentioned in the Comptroller and Auditor-General's Report on the Ministry Accounts, 1916-17.¹ In January, 1915, the War Office had ordered from an armament firm 450 18-pdr. gun equipments.² The several items were separately priced. The prices originally quoted were: For wagons, £260, and for wagon limbers, £260. On a request being made for a substantial reduction, these quotations were lowered to £247 each. After prolonged negotiation, the prices were finally fixed in October, 1916, at £205 each. The Ministry at this time did not possess the power to investigate sub-contractors' prices. Some months earlier (July, 1916), however, tenders for wagons and wagon limbers had been issued to the armament firms and to the trade generally. Messrs. Beardmore quoted: Wagon, £220; limber, £215. The Birmingham Railway Carriage and Wagon Company quoted: Wagon, £116; limber, £111; and in the course of negotiations mentioned³ that they had been sub-contracting for these articles with the armament firm first mentioned above. Presumably the officers who agreed in October, 1916, to the armament firm's prices of £205 were not in possession of these facts.⁴

When Regulation 2BB had been published, there appears to have been some difficulty experienced in making use of the powers it conferred. The question came up at the Munitions Contracts Board on 18 January, 1918. It was then agreed that the armament firms and the aeronautical firms should be asked to submit a list of sub contracts with certain firms suspected of charging excessive prices, with an indication that the Ministry intended to examine the sub-contractors' costs. In the case of projectile contracts, it was considered that no such action was needed. The Controller of Contracts was to take up

¹ Para. 33.

² 94/G/375.

³ Letter of 12 August, 1916. 94/L/530.

⁴ See D.F.3/P.A.C./6.

the question with the Machine Tool department, as the system of machine tool prices did not necessarily involve cheap prices from sub-contractors. The suggestion was made that indirect publicity should be given to the fact that the Ministry had lately enquired into the prices of some sub-contracts and made large reductions. It was agreed, however, not to take this course, but to mention the matter to Mr. Hichens, of the Controlled Establishments Association.

On 6 September, 1918, it was proposed at the Munitions Contracts Board that the main contractors should be asked for a return of all sub-contracts over £10,000, with a view to the investigation of any case where it should seem desirable. The Board resolved that such a measure was not then advisable, but that an officer under Colonel O'Brien, who was dealing with sub-contractors' costs, should get into touch with Contracts officers, and that these should try to obtain, in conversation with contractors, particulars of any sub-contracts which ought to be enquired into.

On 7 October, 1918, the Colwyn Committee considered the point that under Regulation 2BB no investigation might extend into a period of more than one year prior to the date of the Order for investigation. Owing to the difficulty of tracking such cases and to the fact that information as to sub-contracts was often not obtainable until the completion of the main contract, the Committee thought that the period should be increased to (say) two years. The Munitions Contracts Board, however, on 11 October, decided against any request for an extension of the period. It was stated that in some cases sub-contractors' prices to main contractors were approved by Contracts officers. On 25 October, the Board agreed that in certain cases it might be expedient to appoint members of the Cost Investigation staff as "Inspectors," in order that the whole of the sub-contracts of particular firms might be reviewed. Colonel O'Brien stated on 8 November that Contracts officers, owing to pressure of work, were generally unable to follow up closely investigations of sub-contractors' costs. The Board agreed to his proposal that when a Contracts officer had ascertained details of sub-contracts from the main contractor, all further steps should be taken by the Contracts Costs department.

After the armistice, the Finance Committee decided, on 1 January, 1919, that the powers under Regulation 2BB should be retained. The liquidators should call attention to cases which pointed to exorbitant sub-contractors' prices.

III. Methods of ascertaining Costs.

The Ministry of Munitions from the earliest months of its existence practised all the possible methods of arriving at the costs of production. The first is technical costing, that is to say, the estimate of costs by engineering experts resulting from an analysis of the process of manufacture into its elements, and the calculation of what the cost of each of these factors ought to be in the light of all known conditions. Apart from the use, for purposes of comparison, of the Government Factory

costs, this is the only method which could have been used by a Department before the War. With the powers conferred during the War by emergency legislation, another method became possible, namely, the ascertainment of any given contractor's actual costs of production by examination of his books. It is obvious that these Accountancy costs provide a much more powerful weapon in bargaining. The contractor could always argue that the technical estimate did not in fact allow for the peculiar conditions under which he worked ; and so long as he could conceal his actual costs, or (as was frequently the case) did not himself know what they were, the dispute could not be settled. But from the evidence of his own books there could be no appeal. When his actual costs had been analysed by accountants, the technical estimates, if they proved to be considerably lower, served a useful purpose in bringing home a charge of extravagance, or directing the contractor's attention to the exact point where his own expenses needed to be looked into. The wiser contractors were grateful for this enlightenment.

Besides these two methods, which it was open to the Government to retain in its hands by perpetuating the necessary emergency legislation after the War, the Department had an invaluable source of exact information in the National Factories producing similar articles. The immense savings in the cost of gun ammunition during the first year of the Ministry's existence were chiefly effected by confronting the larger contractors with the cost returns from these factories. When it was claimed that an 18-pdr. empty shell could be made, under comparatively inexperienced management, for less than 10s., it was no longer possible for a group of old-established contractors to maintain that a price of 20s. or more yielded them only a reasonable profit on very large orders. This is not the place to discuss the merits of Government competition with private firms. In normal times other considerations come into play : competition is possible, in so far as demand falls short of supply, though it may not actually exist, if armament firms combine to keep up the prices of stores which are technically difficult to manufacture.¹ In the case of shell manufacture at the beginning of the War, the supply at once fell short of demand, and no objection could be raised to the Government's providing supplementary sources of production of its own, since that implied no diminution of the work allotted to contractors, and competition had ceased to exist. The opportunity so created was of the utmost value in protecting the Government from any possible combination of contractors who might

¹ In July, 1917, the Ministry Finance Board were informed that the Treasury was considering an application for the amalgamation of practically all the explosives firms, and the question was raised, how the Government could be protected against exorbitant prices. The Board agreed (10 July) that the Government Factories would generally afford a sufficient protection, and that the trade would probably be protected by the possibility of foreign competition. The present case would probably constitute a precedent ; but the Minister could not be advised to withhold his consent. The Government had power to stop amalgamation only during the War. These views were reported to the Joint Committee of Finance and Contracts Officers on 13 July. It was considered that consolidation should be encouraged so as to diminish waste ; but it was recognised that the consumer's interests would need to be safeguarded in all cases.

agree to keep prices high or to force them still higher. As will be seen, the Ministry lost no time in turning its own cost returns to account, with the result that prices came tumbling down.¹

Almost as soon as the Ministry was formed, Mr. West (D.D.G.A.) organised a staff in his department for the technical costing of the processes of gun ammunition manufacture. This section (A.M. 3, later A.M. 6), under Captain O'Brien, made a study of working conditions and analysed the factors in expenditure under the heads of labour, materials and establishment charges. Gradually they compiled a series of estimated costs of the various natures of shell, forgings, etc. Very wide discrepancies between these costs and the current prices were at once revealed.

The results so obtained were useful in the negotiations for the reduction of shell prices which will be described below. They were also employed when new types of shell were required. Directions were given on 31 January, 1916, that in the case of urgent orders for new types, Captain O'Brien should estimate the costs, and the Director of Contracts might then accept any quotation which did not exceed these costs by more than 25 per cent.²

Early in 1917, when Mr. Webster Jenkinson was responsible for cost investigations, the Technical Costs section was transferred to his branch in the Finance department. Later in the year, accountancy costs and technical costs were both placed under a Director of Contracts Costs in the Contracts department.

The institution of cost accounting at the National Factories was due to Mr. Lever. In his original charter of August, 1915,³ one of the duties assigned to Mr. Lever was

“ the institution and installation, wherever possible, of systems of cost accounting in H.M. Government munitions factories under the control of this Department, in order that detailed particulars as to the cost of the various munitions produced in such factories may be ascertained and returns made to the various heads of departments to whom such information may be of use.”

The Cost Accounting branch remained responsible to Mr. Lever after his appointment (29 October, 1915) as Assistant Financial

¹ See further below, Chap. II. Mention should also be made of the method, largely employed by the War Office, and to some extent by the Ministry of Munitions, of comparing manufacturers' own statements of costs. Many articles were not made in National Factories, and to cost all contracts for these was impossible. Contractors were invited to submit with their quotations a detailed statement showing how the costs were made up. The items of cost were then checked between the various quotations and with similar items from a costing undertaken by the Department. Contract officers, bargaining with the contractor item by item, were often able to reduce the total price on every one of the quotations. This method can be applied without writing for National Factory costs; and one costing yields figures which can be used in the purchase of a number of similar articles.

² Contracts Branch Memo. 34 (31/1/16), 94/S/2043

³ See Vol. III., Part I., p. 20.

Secretary,¹ and thus formed part of the Finance department. The practice of the Contracts department was to refer to Mr. Lever all contracts in which the settlement of price depended on cost investigations.

The new National Shell Factories provided, at least for the smaller natures of shell, both material for the ascertainment of costs and a field for the application of the results as an index of efficiency. A system of cost accounts was devised which should yield for each process of shell manufacture a statement of the output, its cost in material, wages, and establishment charges, and the extent to which each of these items was affected by faulty material or defective workmanship. The average cost of each process through which the shell passed was ascertained, and the addition of these costs gave the total cost of the shell. The costs so obtained are known as "Process costs," as distinguished from "Unit costs." This method permitted the closest comparison of the costs of each operation, not only at each factory week by week, but also as between one Factory and another. The results thus indicated the relative efficiency of the management, and within each factory provided the managers with a clue to any leakage or extravagance. Under the Unit system, on the other hand, costs would be analysed, not into processes, but according to batches of shell of quantities more or less arbitrarily fixed; nor could the results be completed until every shell of that batch was out of the shop. Hence the results, besides being slower of completion, would not bring out the precise point where some defect had caused a fluctuation in the costs.²

The costing system was rapidly introduced into the Factories. Although there was necessarily some difficulty in obtaining staff with any knowledge of costing, representatives of the Finance department visited the Factories and gave instructions as to the books to be kept and the method of preparing cost returns.

By the middle of November, 1915, costing systems had been installed in all the National Shell Factories then working. The returns rendered by the factories began to be received in the week ending 11 December. They corroborated the estimates of the Technical Costing section. At first some doubts were expressed as to the reliability of returns based on monthly figures, but the cost system was so perfected that in most cases the results shown in the half-yearly production statements agreed with the monthly figures.

At the beginning of 1916, all the shell manufacturers were offered the use of the Finance department's special costing forms and printed explanations. A large number of contractors at once took advantage of the offer.

The same methods were then applied to the larger natures of shell, but, until the National Projectile Factories reached full production (about the beginning of 1917), there was not the same body of data

¹ M.W. 63878.

² HIST. REC./R./400/16.

available for the accurate measurement of costs. In the meantime, however, the technical estimates, together with data collected from contracts on the "assisted co-operative" basis, sufficed to effect substantial reductions of prices, not only of large shell, but of forgings and other components.

The Cost Accounting section at an early date instituted a system of auditing the expenditure of contractors who had received grants in money or plant. This financial audit was accompanied by a technical examination, conducted by architects and engineers attached to the Technical Costing section in the Gun Ammunition department, into the proper expenditure of the grants of money and the efficiency of the plant. The information so obtained could be turned to account in the interest of the costing system.

Costing systems were also installed by Mr. Webster Jenkinson at the National Filling Factories, Cartridge Factories, Box Factories, Aeroplane and other Factories managed by the Ministry.

In 1917 Mr. Webster Jenkinson reorganised the system of costing at National Shell and Projectile Factories in order to secure more accurate results and a better check on material used.

At the National Filling Factories the difficulties were greater than at the Shell Factories owing to the nature of the operations and the large amount of labour employed. The operations were divided into four groups: (1) filling shells; (2) filling fuzes; (3) sundry filling processes; (4) filling cartridge cases and assembling Q.F. ammunition. Each group was sub-divided into several processes, the operations including the preparation of the bursting charge or other explosive composition, and the filling of the numerous minor components of the complete round. Since the Factories were engaged on different programmes of work, each of these operations had to be separately costed. In order to make comparisons possible, all materials, explosives, and components were charged to the Factory at standard rates, and the filled products were similarly priced. It was thus possible to compare the costs of two Factories engaged on operations of the same nature, but differing in the extent to which the filling of minor components was carried. The system also simplified the check on stocks and yielded the total average cost of a complete round.¹

The returns included a statement showing the production per worker and time per unit, which enabled the administrative section to take up with the factory management any cases of large amounts of idle time or of increased time per unit which the returns did not explain. A comparative statement of the returns from all the Factories was considered each month by the Filling Factory Committee. Unexplained differences of cost were then investigated by a technical representative, and a summary was sent to each factory, so that the managers might compare their own costs with the lowest costs of other establishments.

As a guide to the Supply departments and for statistical purposes, a Summary of Complete Rounds was prepared, showing the true

¹ The instructions were issued in a Memorandum on the System of Cost Accounts for Filling Factories, M.F. 6/4. See also HIST. REC./R./400/16.

average cost of the various components of a round of ammunition and the highest and lowest costs of each nature. This summary was of great use in showing up the comparative costs of the various classes of shell filling (Shrapnel, Lyddite, 40/60 Amatol, 80/20 Amatol), and for the purposes of preparing estimates for the Treasury.

The cost returns provided the Contracts department with a reliable basis for fixing prices to the trade. Previously, the only method of checking prices had been the examination of contractors' books. The defect of this method, as applied to Filling Factories, was that there was no means of testing the statements of the quantities of materials used or of labour spent. When the National Factory costs became available, contractors were sometimes invited to inspect the factories and verify the accuracy of the costs statements with which they had been confronted in negotiations. Such visits led to the introduction of economies in contractors' works.

The system of cost accounts at Filling Factories was reviewed by the Ministry Finance Board in March, 1917. It was agreed that, though the detail required was considerable, the system was the best available and not too elaborate, if proper results were to be secured. The returns were stated to have been of considerable value in reducing costs.¹

At a meeting of the Financial Secretary's Standing Committee on 13 March, 1918, Sir L. Worthington Evans agreed to the formation of a sub-committee

"to consider the cost returns obtained from the National Factories, the criticisms made thereon by the Director of Factory Audit and Costs, and the corresponding prices paid to contractors, and to prepare a monthly report to be submitted to the Financial Secretary's Standing Committee."²

In their first Report (June, 1918) this Committee showed that many factories were in arrear with their returns. The Second Report (July, 1918) recommended that small Cost Committees, each containing a member of the main Committee, should be appointed in each Supply department to review the costs of the department and report monthly. This proposal was approved by the Financial Secretary. The constitution of the Committees was announced in General Memorandum No. 130 (19 October, 1918). On 15 January, 1919, the Finance Committee agreed that the main Committee on National Factory Costs should be dissolved.

IV. Types of Cost-Basis Contracts.

The Ministry evolved a number of different types of contract based on estimated or ascertained costs of production.³ Broadly, they may be divided into two classes, according as the price was a

¹ Minutes of 27 March and 3 April, 1917.

² The original members were : Mr. D. H. Allan (Chairman), Mr. G. W. Currie, M.P., Sir John Mann or his representative, Mr. H. G. Judd, Sir Philip Henriques, Mr. Webster Jenkinson (C.F.A.C.), Captain M. B. U. Dewar, Mr. Cathles (Secretary).

³ See Note by the Controller of Munitions Contracts for the Select Committee on National Expenditure, 12 November, 1917.

fixed one or consisted of the actual cost with the addition of an allowance for profit. Under the second head there were several varieties, upon the merits of which something will need to be said.

(a) CONTRACTS AT FIXED PRICES.

Fixed prices were based either on actual costs at contractors' works and at National Factories, or on estimates of costs by engineers and accountants. It was recognised that, from every point of view, a price fixed at the outset was most satisfactory both to the Ministry and to the contractor. This method was accordingly adopted wherever it was possible, and extended as more and more information with regard to costs of production accumulated. The Controller of Contracts estimated that by the end of 1917 reliable data existed of the costs of articles representing probably three-fourths of the Ministry's purchases in the United Kingdom.

(b) PROVISIONAL AND POSTPONED PRICES.

In certain cases, manufacturers were directed to proceed before the conclusion of their contracts, the price being either fixed provisionally or left open on the understanding that it should be settled later in the light of ascertained costs.

An outstanding example was certain contracts for gun equipments placed in 1915. The Comptroller and Auditor-General called attention to these in his Report on the Accounts for 1915-16,¹ and commented on the fact that advances had been paid against actual deliveries before the prices had been finally agreed.

In a minute dated 5 April, 1917, Mr. Hanson explained that when the large orders for gun equipments had been placed, neither the manufacturers nor the Ministry had any materials on which to base a price. The urgency of the work was imperative, and deliveries could not begin for several months. If the firms had been asked to quote a price, it would certainly have been very high, and the Ministry must either have accepted it or suspended the preparations. Where firms had quoted prices, these had been reduced by subsequent discussion and investigation. The same procedure had been followed for the same reasons with contracts for filling shells and fuzes and loading and assembling ammunition. The prices originally quoted had been far too high, and some early contracts had been made at excessive prices. The later policy of proceeding with the work on the understanding that prices would be fixed later had proved eminently successful.

The method was not without its dangers. In November, 1917, Mr. Guy and Mr. Garnsey² called attention to a group of contracts for guns, spare parts, and equipments, of a total value of £1,148,955. The orders had been placed in 1915, but the prices had not been settled till 20 November, 1916. Meanwhile, advances had been made to the

¹ Para. 24.

² Report for October, 1917, HIST. REC./R./450/17.

amount of £1,170,000, or £21,045 in excess of the contract value. In spite of this, after the fixing of the prices, payments in full had been made to the contractors on bills amounting to £153,852. When the error was discovered, it was arranged that recovery should be made on other contracts.

In an earlier report, Mr. Guy and Mr. Garnsey had already commented on the large amount of uncleared advances. They found that, because prices had not been fixed on contracts for guns, shell, and small arms, some £28,000,000 appeared on the books as advances, instead of being credited in part or whole to the contractors for the articles. The result was that the contractors could not balance* their books or know how they stood.

Some of the protests made by associations representing the contractors will be mentioned later. They were partly inspired by a dislike of cost investigations, partly by a natural objection to the uncertainties involved in working for an unknown price. Thus, in November, 1917, the Association of Chambers of Commerce pointed out that the contractor became deeply committed to heavy expenditure, and then a price might be fixed later which was not acceptable. The contractor could not withdraw without loss, and was forced to proceed under a sense of anxiety, which was not favourable to production. The Munitions Contracts Board, on 30 November, considered a draft reply. It was agreed that the system was unsatisfactory; but the difficulty of ascertaining a fair price, when the conditions of design and manufacture were rapidly changing, was great. There was always a large number of cases where it was better, both for the contractor and for the Ministry, that the work should proceed before a price could be fixed. Thus, a manufacturer could obtain material and some of the tools before the design was settled. It was agreed that the exceptional circumstances made it impossible to attain the ideal of conforming to ordinary business practice.

In his Report (March, 1918) on the Accounts for 1916-17,¹ the Comptroller and Auditor-General remarked on the continuance of the system of provisional prices, particularly for gun contracts. He had been informed that very substantial progress had been made in fixing outstanding prices, and that arrears had been very greatly reduced. He mentioned two cases in which advances or provisional prices paid had considerably exceeded the final figure.

In a minute² on this paragraph, the Controller of Contracts explained that, except in the case of the gun equipment prices mentioned and aircraft contracts, there were now (April, 1918) very few cases of provisional prices. For gun equipments the method was absolutely unavoidable, and, as a rule, the provisional prices were fixed well on the low side, so as to induce the contractor to co-operate in settling the final price as soon as possible.³ The instance, cited by the Comptroller and Auditor-General, of a provisional price exceeding

¹ Para. 21.

² D.F. 3/P.A.C./30 (19/4/18).

³ Reports on the position of gun prices are contained in P.M./Gen./1300. See also M.F./Advances/1393.

the final figure by £70,000, was quite exceptional. It indicated that, as a result of cost investigations, a much keener price had been obtained than was originally expected. The cases of aircraft contracts were partly orders for new types, where no information existed on which prices could be based. The provisional prices were about 20 per cent. below the estimated final price.

The delay in fixing aircraft prices proved to be serious. On 6 November, 1918, the Finance Committee considered a report from the Controller of Accounts complaining of the congestion of bills and invoicing in the Accounts branch for Aircraft Production. This branch had not less than 2,000 unpriced contracts on its books, and prices were awaited for invoicing some 40,000 to 50,000 items. The Controller of Contracts explained that costs investigations were necessarily protracted. He could not take the responsibility of fixing prices till the results were complete.

In reply to a request from the Treasury,¹ the Ministry furnished on 10 June, 1918, the following statement.² It was pointed out that, since the Ministry placed more than 60,000 contracts a year, the outstanding cases did not appear to be unduly numerous. The list given excludes cost and percentage contracts.

At the Munitions Contracts Board³ on 11 October, 1918, the opinion was expressed that, where the fixing of prices was postponed, it was undesirable that the final decision should rest with the Minister. The Controller of Contracts had been advised that, in cases of dispute, the price could be fixed by a Judge of the High Court, as in the procedure for requisition of output under the Defence of the Realm Act.⁴ Accordingly, the following clause was drafted for insertion in the form of a letter instructing contractors to proceed pending the settlement of price :—

“ The price shall be paid by agreement between the parties, and, failing agreement, shall be determined by a Judge of the High Court in the same manner and subject to the same considerations as if an Order had been made pursuant to Regulation 7 of the Defence of the Realm Regulations and the price to be paid had to be fixed by such Judge in terms of said Regulation.”

The Board approved this clause in principle, but agreed that it should be referred to the Colwyn Committee before any action was taken by the Ministry.⁵

¹ Letter 334/18 (18 January, 1918).

² Munitions Council/497. See Table on page 19.

³ Minute 606.

⁴ See above, p. 4.

⁵ Minute 636 (25 October, 1918).

Number of cases outstanding of prices not fixed.

Goods ordered before—	No. of contracts in which prices had not been fixed—			
	on 31 January, 1918.		on 31 March, 1918.	
	No.	Description.	No.	Description.
1 April, 1915.	<i>Nil.</i>	—	<i>Nil.</i>	—
1 April, 1916.	9	Gun and Howitzer equipments, awaiting cost examination.	9	Do. Cost examinations generally completed. Price under negotiation.
1 April, 1917.	89	Gun and Howitzer equipments and parts, awaiting cost examination.	74	Do. Many cost examinations completed and prices under negotiation.
	17	Trial or experimental orders (8 for Tanks).	15	Do.
	5	Awaiting firms' acceptance of offer made.	5	Do.
	3	Filling contracts, awaiting cost investigation.	—	
	7	1 delayed owing to proposal to take over firm's works.	4	1 Do.
		2 delayed for adjustment of whole operations for Ministry.		1 Do.
		1 awaiting cost examination.		
		3 delayed by disputes with firms.		2 Do
	121		98	

After the Armistice, the Controller of Contracts furnished the Finance Committee with the following statement :—

Approximate Number of Unpriced Contracts.

Aircraft	..	..	..	..	..	..	1,400
Tanks	..	..	..	..	..	..	575
Guns	..	..	..	..	..	..	490
Trench Warfare	..	..	..	..	..	..	380
Ammunition Boxes and Filling	..	..	..	..	..	..	160
Mechanical Transport, etc.	..	..	..	..	..	..	65
Shells	..	..	..	..	..	..	50
Cartridge Cases	..	..	..	..	..	..	35
Electrical	..	..	..	..	..	..	25
Iron and Steel	..	..	..	..	..	..	25
Horse-drawn Transport	..	..	..	..	..	..	20
Various	..	..	..	..	..	..	41

3,266

Some of these contracts involved the pricing of hundreds of items. The Committee resolved that the Controller of Contracts should be requested to make the fixing of prices his first duty.

(c) COST AND PERCENTAGE (TIME AND LINE) CONTRACTS.

Cost and percentage contracts were of two types:—

I. Payment based on (a) actual cost of labour, plus (b) actual cost of materials, plus (c) ascertained actual cost of overhead and establishment expenses attaching to the work, plus (d) a percentage for profit on the total of (a), (b) and (c).

II. Payment based on (a) actual cost of labour, plus (b) actual cost of materials, plus (c) an agreed proportion (usually expressed as a percentage of (a)) to represent overhead or establishment expenses, plus (d) a percentage for profit on the total of (a), (b) and (c).

In the case of building contracts, (c) and (d) were usually lumped in one percentage figure. The components of establishment or overhead expenses vary in different businesses. The more usual are: fuel, light, power, water supply, maintenance of machinery and plant, cost of perishable tools, expense of headquarters establishment, drawing office, etc.

It was generally agreed that this form of contract was radically unsound, since it put a premium on extravagance. In May, 1916, it was laid down that "only very special circumstances, upon which the Assistant Financial Secretary will need personally to be satisfied beforehand, can justify any proposal to pay contractors on a basis of cost plus percentage of profit."¹ Mr. Lever, speaking with reference to cost and percentage contracts for building services, explained to the Public Accounts Committee in 1916 that the Ministry aimed at inserting a provision that wages "shall be the ordinary district rates and not higher." He added that in most cases officials of the Office of Works were employed to check the material used and the wages paid. For the Projectile Factories, the Director of Factory Construction had a staff of his own for this purpose.

It was necessary in the early days to place contracts of this type for gauges. When the Ministry was formed there were extremely few precision gauge-makers in this country, and orders had to be placed with any firm that seemed capable. Nearly all the first contracts were on the cost and percentage basis, because neither party had any experience of cost of production to guide them. At first a fixed percentage for overheads (100 per cent. on labour) was specified on nearly all gauge orders. Some firms required an even higher percentage. In November, 1915, this fixed percentage was superseded by an ascertained percentage. A considerable economy resulted. Late in 1915, on the instructions of the Assistant Financial Secretary, an attempt was made to abolish the cost and percentage system for gauge contracts and to substitute fixed price contracts. By March, 1916, about half

¹ Contracts Branch Memo. 54 (30/5/16).

the orders were being placed on the fixed price basis. Later, the cost and percentage system was limited almost entirely to new gauges, the cost of which could not be estimated by the contractor. In April, 1917, there were about twelve firms making gauges on these terms, all of whom were also making gauges of older patterns at fixed prices. The practice of placing cost and percentage contracts for gauges was justified on the grounds that (1) it was extremely difficult to estimate accurately the cost of work executed to such fine limits; (2) the cost consisted almost entirely of labour, the value of the steel was negligible; (3) rejections were very heavy and usually caused by a slip at an advanced stage of manufacture. In quoting prices, manufacturers had therefore to allow for rejections of gauges on which a very large amount of labour had been expended. Contractors had stated that, in making estimates, they had added 20 to 25 per cent. to allow for spoilt work, rejections and alterations in drawings. Much care was taken to eliminate unsatisfactory firms, and to supervise closely the progress and costs.

In February, 1917, the Ministry Finance Board decided that it would be necessary to place contracts for gun repairs on this basis in order to secure rapid deliveries. Mr. Webster Jenkinson was asked to undertake the cost investigations for this work. In repair work the material bought by the contractor was usually a small item as compared with wages, and the check on material was consequently less important.

On 22 November, 1917, the Joint Committee of Contracts and Finance Officers of the Admiralty, War Office, and Ministry of Munitions considered the following clauses for insertion in cost and percentage contracts:—

“(a) Contractor not to pay wages, etc., in excess of standards current in the district;

“(b) The amount of any rise in wages to be included in the net prime cost, but no profit or percentage to be allowed thereon.”

With regard to (a) the Munitions Contracts Board had agreed, on 2 November, to circulate the following clause to Contracts branches with instructions to insert it in all future time and line contracts. The object was to prevent the contractor from bidding against neighbouring contractors, as had recently occurred in connection with a number of building contracts.

“The contractor shall not, in the execution of this contract, pay to any class of labour employed thereon or in connection therewith rates of wages, bonuses, or allowances in excess of the standards current in the district for that class of labour without the previous authority in writing of the Ministry of Munitions.

“The contractor shall be responsible for the observance of this stipulation by any other person or persons to whom this contract or any portion thereof is sub-let or assigned by the contractor.”¹

¹ Contracts Department Memo. No. 8. P.M./Gen./1134.

The Joint Committee resolved that this clause should be applied in existing as well as in future cost and percentage contracts.

As regards (b), the Legal section was drafting a suitable clause. Some twelve firms holding gun repair contracts, and some twenty holding contracts for building construction, had been asked to consent to the introduction of such a clause in existing contracts. Some had agreed ; others had protested or refused.

For construction work, contracts of this type were placed in cases where it was impossible to prepare detailed plans in advance. The percentages in the early days of the War reached 10 per cent. overhead, or $12\frac{1}{2}$ per cent. on wages and 5 per cent. on materials. The figures remained somewhat high in the contracts placed by the Director of Factory Construction in 1915-16. In 1917 they were reduced by the Ministry to 4 per cent. on the first £250,000, 3 per cent. on the second £250,000, and $2\frac{1}{2}$ per cent. over that amount. It was also arranged that, when such contractors were entrusted with new work, the lower rates on the scale were applied as if the various jobs undertaken by the contractor had been all on one contract.¹

In April, 1918, a statement was prepared for the satisfaction of the Comptroller and Auditor-General.² It was explained that the number of time and line contracts was strictly limited, and mainly confined to experimental and trial orders, repair contracts, and construction contracts. Several safeguards were in use: (a) Contractors were forbidden to pay wages above the district rates; (b) in some cases inspectors checked the amount of material used; (c) a periodical audit of cost was conducted during the progress of the work; (d) the percentage was generally not chargeable on increases of wages. It was not the practice to place such contracts for stores for which costs data existed, or where fixed prices were arranged for other contractors, except in the case of aero-engines. These were bought both on cost and percentage contracts and at fixed prices, and here ascertained costs were compared with fixed prices and used in negotiating fixed prices.

(d) COST PLUS FIXED SUM OF PROFIT PER UNIT.

The system of paying to the contractor his actual outlay plus a fixed sum per unit for profit was introduced by the Admiralty and largely used in shipbuilding contracts, in order to remove the incentive to extravagance inherent in the cost and percentage system, and to substitute an incentive to increase production. Some few contracts for the Ministry were made on this basis. In the earlier days the sum fixed for profit was generally an amount calculated, upon the information available, to be within 10 per cent. of the probable cost of the article.³ Similarly in some building construction contracts

¹ Examples are given in the evidence before the Public Accounts Committee, April, 1917, Qu. 2347. Construction Contracts will be dealt with at length in Vol. III., Part III.

² See Report on Ministry Accounts, 1916-17, Para. 49. MF/E & A/473. D.F.3/P.A.C./20.

³ On rates of profit see below, p. 25.

the contractor was paid a fixed fee for his supervision and work irrespective of any variation in cost.

The danger of this system was that a contractor, being interested in pushing on manufacture as fast as possible, might be tempted to purchase components not in the best, but in the first market, knowing that he did not stand to lose. This danger could be met by providing safeguards against extravagance, such as a maximum price.

(e) COST PLUS BONUS.

A form of contract (M.C. 2) was introduced early in 1916, which proved of special service with contractors who were asked to take up novel production of large and important articles. It aimed at making it the interest of the contractor at once to increase his production and to economise on his costs.

The system worked as follows:—(1) A maximum price (£A) was first fixed, and it was understood that the Ministry would not in any event pay more than that amount. (2) The contractor was paid for each article the cost of production (provided that this cost should not exceed £A), and, in addition, certain amounts by way of bonus, as described below. The cost of production included only (a) the cost of material; (b) all wages directly expended in the production; (c) fuel, light, and power required therefor; (d) the cost of upkeep, repair, and replacement of plant and machinery supplied by the Ministry; (e) the cost of all perishable tools; (f) such proportion of the establishment charges as was determined by the Minister to be attributable to the Agreement, including depreciation and an allowance for capital invested or employed in the production, but excluding any general direction and management expenses. (3) As an encouragement to increased production, the contractor further received a bonus per unit. (4) To encourage economy, the contractor was also paid a proportion of any amount by which the total of (1), (2) and (3) fell below £A.

The amounts payable by way of bonus were on the following plan:—

If the cost of production (<i>i.e.</i> (1), (2) and (3) above) is less than—	but not less than—	Amount or method of ascertaining bonus.
£A	£B	Difference between cost of production and £A.
£B	£C	x shillings, being greater than £A—£B.
£C	—	x shillings plus one-fourth of the difference between the cost of production and £C.

Many contractors accepted one-fourth of this saving below the standard cost. Others were granted one-half.

A variation of this method, which came later to be generally preferred by the Ministry, was to start from a certain figure *A* and give a quarter of the savings down to a second figure *B*, a third of the

savings below that down to a third figure C, and a half of the savings below C. This method was employed when the actual cost could be estimated with tolerable certainty. It was, of course, to the contractor's interest to work hard to get his cost just down into the compartment where he would receive the highest bonus.

(f) COST PLUS PROFIT-SHARING, OR CO-OPERATIVE CONTRACTS.

A slightly different form of contract fixed a price at a figure high enough to satisfy the contractor, with a proviso that the profit or loss above or below that price should be shared between the Ministry and the contractor. This proviso was also adopted in some assisted contracts where the Ministry provided the whole or part of the plant.

Co-operative contracts were used where there was a considerable difference between the estimates of the Ministry and the contractor as to prices. They provided an incentive to economy, and a substantial return to the Ministry if the price proved to have been fixed too high. Cost returns were regularly received, which provided data, not only for price-fixing, but for watching the efficiency of the manufacturer. There was also an incentive to make sub-contracts at reasonable prices.

The objections to this type were stated by Colonel O'Brien to the Munitions Contracts Board in May, 1918. The contractor received payment on account, but the final settlement might be delayed for years, and during the execution of the work, he did not know how he stood. He had also to consider the Excess Profits Duty, and the profit-sharing scheme was in effect a contracting out of Excess Profits Duty, together with a gamble on the probability that his ultimate profits would be liable to the duty. It was hard for him to settle his accounts and to get out his balance sheet.

Another difficulty was that the Ministry could not, even at this date, provide a sufficient staff for cost investigations. Either the contractor's figures would have to be accepted or the Department would have to face large arrears. Colonel O'Brien recommended that profit-sharing should be confined to cases where the necessary audit was a simple matter (*e.g.*, where the whole output of a single product was taken), or the total sum was large enough to justify the expenditure on very full investigations. He also pointed out that, as each successive economy in manufacture became harder to effect, the scale above and below the datum line should be sliding, so that the penalty for high cost and the reward for low cost should be heavy.

(g) THE SAFETY VALVE CLAUSE.

Where the Ministry had good grounds for insisting on a lower price than the contractor, owing to lack of previous experience or over-caution, would accept, the expedient was adopted of placing the contract at the lower price with a promise that, if it did not yield a reasonable profit, it should be supplemented to a limited amount not exceeding the contractor's quotation. There were very few cases in which the contractor ultimately claimed the benefit of such a clause.

(h) STATISTICS OF COST-BASIS CONTRACTS.

In November, 1918, the Controller of Contracts prepared for Mr. Justice McCardie's Committee a statement of the number and value of current contracts on a cost and percentage basis and on a cost and fixed profit basis, as at 31 August, 1918.¹ These were sub-divided into Production and Construction contracts.

(1) *Production Contracts*.—The contracts on a cost and percentage basis numbered 227 out of a total of about 15,000 current contracts (1.51 per cent.). The estimated expenditure under these contracts was £2,562,800, or 1.44 per cent. of the total value of all current Production contracts. The cost and fixed profits contracts numbered 63, or .4 per cent. of the total. Their value was £12,614,000, or 7.08 per cent. of the total. The combined total of both types was accordingly 290 (1.93 per cent.) of the value of £15,176,800 (8.52 per cent.). Four contracts, totalling £45,000 were on a cost basis without profit. These were for anti-gas and aircraft.

(2) *Co-operative Contracts*.—These related to Production work only. They numbered 218 (1.45 per cent. of the total) and were of a value of £14,975,700 (8.4 per cent. of the total current Production Contracts).

(3) *Construction Contracts*.—Out of 59 contracts on a cost basis, 40 (value £5,482,000) were cost and percentage, and 19 (value £609,000) were cost and fixed profit. The total estimated expenditure was .64 per cent. of the total current expenditure on construction work.

Attention was called to the finding of the Colwyn Committee, "that it is to-day necessary to have recourse in the majority of" (construction) "cases to the cost plus percentage contract," and to the Committee's recommendation "that whereas in the majority of cases a lump sum contract is no longer practicable, the basis of cost plus fixed profit to the contractor be adopted in lieu of a profit increasing with the expenditure."²

V. Rates of Profit.

If contracts are to be based upon costs, and profits are no longer kept down by competition, it is necessary to determine what rates of profit may reasonably be allowed to contractors. This problem proved to be one of the most difficult that the Contracts department had to face.

The Select Committee on National Expenditure in their First Report (24 October, 1917) put forward a series of recommendations intended to strengthen Treasury control over departmental expenditure. They considered that the Treasury staff should have been strengthened so

¹ Copy in Munitions Contracts Board Minutes, 4/11/18.

² Cd. 9197 (28/8/18).

as to enable it to satisfy itself that contracts for munitions were being made by the Ministry "only on terms that were carefully considered and were reasonable." To this end they recommended :—

"That the Treasury, without attempting a detailed control over the terms of individual contracts, should determine from time to time the rates of profits, and should satisfy themselves that the principles adopted in settling the conditions of contracts were sound."¹

This recommendation brought up the question, what was a reasonable rate of profit. The Controller of Contracts consulted the Financial Advisory Committee in the following terms :—

"The opinion of the Committee upon what is a reasonable rate of profit will be of great value for guidance in the negotiation of contracts. It is realised that no rigid definition can be framed, as circumstances will vary greatly. For instance, different rates would apply according to (a) the nature of the work, whether novel or repetitive; (b) the proportion of sub-contracting; (c) the relative proportions of the cost of materials and labour; (d) the rapidity with which capital is turned over."²

As a basis for discussion, the Controller of Contracts communicated to the Committee some notes, prepared by him for the Select Committee, on the steps taken by the Ministry of Munitions in fixing prices. It was here stated that in practice the rate of profit was largely the result of bargaining, since naturally the Ministry and the contractor often differed in their opinions on what was reasonable.

"In theory, and very generally stated, the *maximum* profit aimed at is 10 per cent. of the cost of wages, materials and expenses. Materials are held to exclude sub-contracted work, upon which 2½ per cent. for supervision and trouble is considered adequate, unless the main contractor renders his sub-contractor special guidance and assistance, such as the loan of patterns and drawings." These rates had not, of course, always been upheld in practice. In the earlier days, a larger margin of profit had often been necessary in order to induce manufacturers to take up novel lines of work, to compensate them for the cost of changing over their plant, tools, etc., and in many cases to enable them to meet the excess cost of extensions of their works and plant. As time went on that expenditure had been recouped, and negotiation had become keener. Obviously, the rate must vary for different classes of work, and in different circumstances of production.

"In actual practice the negotiation of prices generally proceeds upon the estimated cost of production, and calculations are not based upon the turnover or capital employed, although these factors are taken into account."

The criterion of former profits to a large extent failed. The enormous demand for munitions had brought into the field almost

¹ Paras. 34, 38.

² Remit. No. 25, 24 October, 1917.

every class of manufacturer, forcing them to adapt their equipment and methods. In such cases there were no data to go upon except the rates of profits previously made by the firms on their peace-time products, and, in rare instances, the rate of profits which the armament firms had obtained. Neither of these standards was a sufficient guide. While some consideration was given to previous rates of profits, efforts had been made to lower these rates, especially where production had been increased and the turnover was more rapid. The Department, in considering what rate was "reasonable," had refused to admit that the former rate should be maintained, nor had it attempted, in making contracts, to limit the total annual profits to the amount earned in years before the War. Such limitation of total profits was provided for by the Munitions Levy and Excess Profits Duty—forms of taxation which must be disregarded in negotiation of prices.

Sir John Mann supplemented these notes by a memorandum, dated 21 December, 1917, putting to the Financial Advisory Committee some other general considerations.

(1) How far could any "reasonable rate of profit" be made effective against the contractor?

Directly and definitely, only in one class of contracts—cost plus profits contracts. Here the appearance of control of profits was perfect; the substance of economy was absent. Contracts of this class were now limited to cases where there was no practicable alternative.

In fixed price contracts—probably one of the soundest forms—now that open competition had almost ceased to exist, the application of a defined reasonable rate of profits was limited to bargaining for a price estimated by the Contracts department to leave the contractor not more than the defined reasonable profit. When the contract was once made, the contractor ought to be free to reap the reward of any efforts to reduce his costs, and, provided there had been no misrepresentation, the State had no ground of complaint if he made more than the anticipated rate.

Before entering into a continuation contract the State was entitled to investigate the costs of the former contract, and to negotiate a new price in the light of the results. The Department would then allow a "reasonable rate"; but when the fixed price had been agreed, if the actual profits proved to be higher, again the State should not object.

The experience of the War showed, in respect of many articles, continuously declining costs, owing to increased output, improved machinery, greater efficiency of labour, etc. There might, therefore, be some advantages in having a reasonable rate of profit defined for use in negotiating fixed price contracts.

(2) Granted that a "reasonable rate" should be defined, in relation to what standard—turnover or capital—should it be reasonable?

Sir John Mann considered that the natural standard was turnover, which was the measure of the scope for efficiency and economy, and the field of risk in the purchase of materials, in the rates of wages, and from strikes, etc.

The relation to capital could not, however, be ignored, because the number of times a contractor turned over his capital in a year affected the rate of profit he would accept on his turnover in normal conditions. Luxury businesses, such as jewellery, require at least 20 per cent. net on turnover, whereas some trades—*e.g.*, those dealing in perishable food, make profits enormous in amount, but less than 2 per cent. on turnover. Attempts had been made to convert a rate of profit on turnover into a rate of profit on capital; but in a composite business the calculation of capital employed in relation to any particular contract presented an accountancy problem so difficult as to prevent capital being taken as the standard for reckoning a reasonable rate of profit. The difficulty had been aggravated by war conditions. Profits had been increased in relation to capital by working on borrowed capital, by longer hours of work, by automatic machinery, and by abundance of orders. Any of these conditions, and many others, might vary in two businesses with contracts for the same article. Sir John Mann, accordingly, held that the standard must be turnover.

Average pre-war rates of profit could not now be taken as necessarily reasonable, because the costs of materials and wages had risen, while there had been a decrease in risk, partly owing to the supply of materials by the State at fixed price, partly because authorised increases of wage rates were added to contract prices. If the accounts, for a financial year under war conditions, of a number of companies in each class of business could be obtained, it might be possible to draw up a scale of reasonable profits for each class. Sir John Mann feared, however, that such accounts could not be obtained for a period recent enough to afford a reliable basis. Only an arbitrary general rate could be suggested.

Finally, Sir John Mann pointed out that, while some guidance as to reasonable rates would be useful to the Contracts department, publication was inadvisable, since standard rates, when known to contractors, tended to become minima rather than maxima.

As a further help to the Committee, the Directors of Contracts branches were asked to state, for their own classes of goods, what was known of the rates of profit which had prevailed before the War and during each year of the War.¹ A summary of their replies is given in Appendix I. Generally speaking, the actual rates earned were rarely known, particularly for the earlier periods, and the directors could only fall back upon intelligent guess work.

The Financial Advisory Committee were not able to arrive at any very definite conclusions. Their Report, dated 30 January, 1918, was as follows :—

“ In the opinion of the Committee there are no definite rules which can be laid down as to the fixing of what is a reasonable

¹ P.M./Gen./1143.

rate of profit on contracts with the Ministry generally. Each contract must be governed, more or less, by the particular circumstances of its own case, and the rate of profit will vary in accordance with these circumstances.

“ Contracts with the Ministry are not fairly comparable with ordinary pre-war contracts. There is little open competition in the usual sense of the term. In many cases the Government supplies the material at a fixed price and bears the burden of all increases of wages granted by the Government after the date of the contract.

“ The Government in many cases is the sole customer, taking the entire output, and in these cases the risk of the contractor is eliminated both on materials and labour, whilst his establishment charges are averaged over a large continuous output without the necessity of carrying stocks and book debts, or incurring bad debts. He is thus in the favoured position of having a fixed demand for his output without the need of incurring selling commissions and can afford to accept a lower rate of profit on his turnover.

“ In such cases the problem resolves itself practically into one of fair remuneration for—

- (a) The use of capital ;
- (b) The employment of labour ; and
- (c) The efficiency of skilled supervision.

“ On the other hand, the matter is complicated by various factors tending to dislocate production, such as labour unrest, scarcity of material, and change of design. Whilst the manufacturer fixes his price so as to yield him a profit in relation to the total amount of capital utilised in his business and the value of labour and brains employed, the purchaser, in the ordinary course of peace time trade, requires a price based on competitive production, thus obtaining the lowest price which efficient production can accept as remunerative, leaving inefficient works to be driven to accept the same price, which may yield little or no profit, if they desire to keep their works going. To-day, however, the position is different. In the interests of the production of munitions, works have to be kept going and manufacturers must feel reasonably assured of being able to retain a fair profit in order to induce the maximum output.

“ The problem for the Ministry, therefore, is to procure at once the most efficient and largest production at the lowest cost, whilst assuring a reasonable profit to the manufacturer. Generally speaking, in fixing prices it seems fair that the efficient manufacturer should realise a somewhat higher rate of profit than that gained by the less efficient manufacturer, it being all-important to grant a reward to stimulate economy and efficiency of production.

“The Committee have examined with special interest a form of contract providing the Government and the contractor a joint interest in the savings to be effected by improved methods—a very desirable method to adopt, to increase the ratio of profits. There is, however, the obvious danger of fixing the original contract price too high in anticipation of a return through savings, which will tend to defeat the intention of the Ministry.

“Whilst the amount of capital employed will always be a predominant consideration for the contractor tendering, production should, from the standpoint of the Ministry, be the main basis on which profit should be measured. Where continuous production of repetition work occupies the whole time of the factory, obviously a low rate of profit can be accepted on the rapid turnover of the works. Where heavy goods are constructed, involving a slow turnover of capital, a higher ratio may be granted.

“Generally speaking, the Committee approve the methods now adopted in the Contracts department, as explained by Sir John Mann to the Committee and as set out in the memorandum of 21 December, 1917.

“While it is impossible for the Contracts department so to fix prices as to produce any predetermined rate of profit on capital employed, the Committee are of opinion that the net profits (subject to the deduction of Income Tax) which should remain as remuneration of capital should be not less than 10 per cent. per annum.”

The Select Committee on National Expenditure returned to the subject of rates of profits in their Report of 6 March, 1918, and treated it at considerable length.¹

The Committee understood that, while a maximum profit of 10 per cent. on costs was held up by the Contracts department as a general aim, in practice, despite the department's desire, prices were now, as formerly, reached by bargaining, in which costs, if ascertained, furnished an argument; but the ultimate conclusion largely depended on the urgency of demand and the sufficiency of supply.

The Ministry's practice of neglecting the consideration of Munitions Levy and Excess Profits Duty was approved. It was difficult to offer precise figures of profits earned by firms subject to these imposts. A table had been put in to illustrate taxation during one year of control, from which it appeared that, in the aggregate, twenty-six firms selected at random earned during that year nearly five times the amount of their standard profit. Of this they retained as special depreciation on new capital expenditure more than half their standard profit, and a slightly larger amount for additional output. After deduction of Munitions Levy, the firms, in the aggregate, retained nearly twice

¹ Report 1. (1918) Paras. 48-68.

their standard profits over and above the special depreciation. In no case could it be stated with certainty what was the amount of capital employed.¹

The Committee gave full credit to the success of the Contracts department, in face of many disadvantages, in reducing prices by bargaining. But they held that bargaining was never a satisfactory procedure. The contractor who thought the Ministry was getting the better of him on one occasion would try to do more than level himself next time. The spirit of bargaining spread from the less patriotic contractors to others who would not at first have been inclined to make money out of the difficulties of their country. "The desire of the individual for equality of treatment has shown itself throughout the War the only feeling in conflict with patriotism." If some firms stood out for big profits, others would do the same in self-protection. "The ill effect upon labour of the impression that manufacturers are making big profits has been mentioned in our previous Reports; and that excess taxation is only a partial corrective is proved by the fact that contractors have thought it necessary to stand out for as high terms as they can get."

The Committee went on to illustrate the unsatisfactory nature of bargaining from the cases of steel,² copper plate rolling and shells. The transactions in relation to these supplies, in the Committee's opinion, illustrated several points.

(1) The objections to a flat rate and collective bargaining. A flat rate must either press unduly on the small firms or yield too large a profit to the better equipped. It saved much individual bargaining, and appeared to be unavoidable for by-products, the costs of which could not be ascertained. But in ordinary cases the flat rate was advantageous only where costs showed a well-established average, and the poorer producers could be dispensed with. Where they could not be dispensed with the rate might be modified to suit individual cases.

¹ Para. 50. The instance quoted at the end of this paragraph appears to be misleading. The reference is to Mitchell, Shaw & Co., Hayes Factory. The sum of £200,000 which the Committee says "would be clear profit" on an initial expenditure of £130,000 on plant and buildings and some £30,000 for working capital, was, in fact the firm's *estimate* of profit, which would have gone to the Government, for whom they were to run the factory. The Committee's concluding observations: "The point of importance is that in the agreement which was made, although it had subsequently to be terminated by the Ministry, the figures given, with their very excessive rate of profit, were accepted as affording a basis of negotiations," falls to the ground.

² With reference to the paragraphs on Steel an officer of the Finance Department wrote to Sir L. Worthington Evans on 19 March, 1918, as follows: "The criticism of Steel prices is really misdirected. The complaint should have been that the Ministry should have insisted on the production of costs, and should have fixed prices on the basis of a reasonable profit in the first instance. Subsequent revision would doubtless have followed, since costs have risen generally. I think the Committee are altogether justified in their specific attack in regard to the Steel position. The Ministry has failed in its duty in so long allowing the prices fixed in 1915, admittedly high, to hold without any attempt to reduce them; but revision has now taken place. I know of no other commodity the price of which demands revision."

(2) Full technical cost investigation should be applied, whether rates were flat or individual.

(3) The rate of profit only remained in dispute. The maintenance of the pre-war profit on the cost of an article, as in the case of machine tools, had been a wise precaution against profiteering in the early days of the War, but its continuance now could only be defended, contrary to the Ministry's practice, by considering the incidence of Munitions Levy and excess taxation. Where the principle was still observed, it should be abandoned.

On the other hand, due attention must be paid to the amount of capital employed and the rate normally earned on that capital before the War. To a large extent this factor was equivalent to that of the amount of turnover represented in the manufacture. The Ministry already observed the principle that a lower rate of profit should be allowed where the turnover was rapid. Account should also be taken of capital expenditure incurred by the Ministry ; but capital largely employed in provision of material should be differently treated, since Government control of material had diminished risk, and increases of cost of material (as of wages) could be separated off and should not carry increase of profit.

To give effect to these recommendations, definite rulings should be obtained as to the rates of profit to be allowed. The Committee believed that reasonable and acceptable rates could be arrived at. Equality of treatment would allay discontent among manufacturers. Bargaining would be eliminated, and the suspicion would be removed that undue profits were being made out of the War. There was no analogy between present circumstances and ordinary commercial manufacture. Contractors depended entirely on Government for the continuance of their work ; there were no speculative risks, and almost no competition. The Break Clauses secured them against loss, and periodical revisions of prices allowed for increases in cost of wages and materials.

The Committee did not attempt to indicate what would be fair rates of profit. The rates would not affect only munitions work. They should be reached after a survey of the whole field of Government contracting. The special committee already appointed by the Treasury appeared to be the proper authority.

They recommended—

“ that collective bargaining be abolished, and that flat rates be established only in cases where it is possible to arrive at an average cost and to eliminate the uneconomic producer ;

“ that as soon as possible a decision be arrived at regarding the rate of profit that should be allowed in each industry, due regard being had to the rate of turnover and to the normal profits of capital earned before the War.”

Almost simultaneously with the above Report of the Select Committee, the Report of the Inchcape Committee¹ (7 March, 1918)

¹ For the appointment of this Committee by the Treasury, see p. 151.

appeared. This Committee commented on the fact that the various Government Departments had taken different views of what was a reasonable profit to be allowed to contractors. They considered it impossible to lay down hard and fast rules on this point, but they thought that some approximation to uniform practice might be reached. They drew attention to the following points :—

(1) A profit of 10 per cent. on turnover had been regarded as reasonable in many cases before the War. But now that wages and the cost of materials had risen, 10 per cent. on the resulting expenditure might mean a considerable increase in the amount of the profit, while the capital employed and the work involved might not have increased correspondingly. Some increase might be justified by the fall in the value of money, but it was clear that the pre-war percentage of profit must in many cases be too high. Some Departments had acted on this conclusion ; the general adoption of it would save large sums.

(2) The regular practice of the War Office was in favour of restricting the percentage on turnover or on sale price according to the relation between the capital employed and the annual turnover and also to the pre-war rate of profit. This practice had effected large savings without giving dissatisfaction to contractors, and in a number of cases only 3 per cent. or 5 per cent. on turnover had been given. It was not adopted generally in all Departments.

In the Ministry's letter to the Treasury¹ referring to this Report, regret was expressed that the Committee had not made definite recommendations. The difficulty in the way of a common procedure had hitherto been to find a method of reaching a generally satisfactory scale.

The objection to the War Office practice, favoured by the Committee, appeared to be that, if it meant that the rate of return on capital was to be taken into account, and that bargaining could not be avoided without resorting to a time and line system, the Committee had condemned both these methods. The Minister did not see how bargaining was to be avoided, though he recognised that, in bargaining, the various considerations guiding the War Office must not be ignored.

Mr. Webster Jenkinson (Controller of Factory Audit and Costs) differed from the Select Committee's condemnation of bargaining.² He considered that, in order to get a fair price, the element of bargaining must generally enter into transactions between buyer and seller. In some trades it was possible to make a close all-round price, or (in special cases) to agree upon a percentage of profit ; but the best results were obtained by knowing the actual costs and then bargaining as to the rate of profit and allowance for contingencies, keeping within certain rates. By bargaining he had sometimes fixed a price lower than the figure which would yield a rate of profit to which he had been prepared to go. To fix a rate of profit, regardless of cost or on a sliding scale, removed all incentive against waste and extravagance. Economy of labour and materials was now far more important than an extra

¹ Munitions Council/600. 11 April, 1918.

² Memorandum on the Select Committee's Report (20 March, 1918).

2 per cent. or 3 per cent. profit to the contractor. The Ministry should aim at reducing costs of production, preventing waste of material, and increasing efficiency. Contractors who could do this were entitled to a larger percentage of profit than the wasteful ones.

The Munitions Contracts Board considered the Select Committee's Report on 15 March, 1918. They agreed that it was not possible to lay down a fixed rate of profit for all contracts; but a margin of profit applicable to particular classes of goods, *e.g.*, steel, might be determined. The members of the Board were asked to consider this latter point and to report what rates should be fixed for each class of store.

On 10 May the Munitions Contracts Board decided that the time had come to revise the 10 per cent. rate of profit hitherto taken as a standard. The result was the issue of a memorandum, on 31 May, to the Contracts department.¹ It was laid down that an effort should be made to reduce the rate of profit allowed to contractors in view of the rise in the cost of wages and materials, the effect of which was that the same rate of (say) 10 per cent. on cost of production might yield a much larger amount of profit with no corresponding increase of capital. Some increase of amount might be justified by the lower value of money; but a reduction of the rate should be aimed at. Thus, where 10 per cent. had been the basis, $7\frac{1}{2}$ per cent. should in future be considered generally as the maximum rate, though in practice rigid adherence to any rate was impracticable, and some discretion must be left to Contracts officers. "The percentage of profit on turnover or in selling price should also be restricted according to the relation between the capital employed and the annual turnover, and also to the pre-war rate of profit. The effect of this may be that in some cases a contractor will make a profit of less than 5 per cent. on his turnover, and yet obtain a good rate of return on his capital." Arrangements had been made to supply Contracts officers with any available balance sheets and reports of annual meetings of shareholders of contracting Companies, for use where disputes arose about the amount of profit obtained from past contracts.

The minutes of the Munitions Contracts Board record the views of the Board on certain representations put forward by the Federation of British Industries on 26 September, 1918.

(1) It had never been assumed that 10 per cent. was the fixed profit on turnover. The margin of profit had always been based on rapidity of turnover, and special reward had been given to extra efficiency in economy, output, or design. Profits on turnover varied from 4 per cent. to 20 per cent.

(2) The recent instructions to the Contracts department had been understood to mean that profit on turnover was to be reduced by one-quarter, not fixed at $7\frac{1}{2}$ per cent. The reduction was justified by the fact that the length of the War had enabled contractors to write off capital expenditure much better than had been expected, and by the great inflation of turnover due to regularity of demand and increased cost of wages and materials.

¹ Contracts department Memo. No. 53. (P.M./Gen./1532.)

(3) The allegation that the rates did not allow a sufficient return on manufacturers' capital was not supported by the current prices of the largest industrial stocks, when these were compared with pre-war prices and the fall of Government Stocks in the same period was remembered.

(4) The remuneration of labour had doubled with the cost of living ; but this was "earned." Dividends were "unearned," and, if doubled, would go to classes who could reduce their expenditure and would lose the incentive to do so.

(5) It was admitted that reserves must be created ; but in general they had been created. The newspapers were full of cases where reserves were being distributed as bonus shares.

The Colwyn Committee,¹ in their Second Report (31 October, 1918), dealt with the contention of the Federation of British Industries that fixed scales of profit should be laid down, varying with the class of store and the period of production. The Committee did not feel justified in making any recommendation of stereotyped scales of profit. The Federation had pointed out that, in certain classes of contract, the general policy had, for some time past, been to reduce the *rates* of profit calculated on costs of production which had been allowed earlier in the War. The Committee, after very careful consideration, held that this policy was on the whole reasonable. A reduction in rates did not necessarily mean a reduction in amount.

Thus, at the date of the Armistice, no conclusion had been reached on this question. As the Select Committee had pointed out, it was difficult for any Department other than the Treasury to fix rates for its own contractors without considering other branches of industry. But neither the Inchcape Committee nor the Colwyn Committee would undertake to lay down any scales of profit for the guidance of the Departments.

¹ For the appointment of this Committee by the Treasury, see below, p. 154.

CHAPTER II.

COST INVESTIGATIONS AND THE REDUCTION OF PRICES.

I. The Reduction of Shell Prices.

The means possessed by the Ministry to ascertain the costs of production by technical estimates, by examination of contractors' books, and by returns from National Factories, have been reviewed in the last chapter. It remains to give some account of the use to which these means were put. The outstanding case was the reduction of shell prices in the winter of 1915-16. At that time, gun ammunition represented a very large proportion of the Ministry's total expenditure on purchases, and this was at first the only field in which National Factory costs were available. It must not, however, be forgotten that reductions were also effected for other important supplies, notably cordite.¹

In November, 1915, the system of cost returns had been installed in the National Shell Factories and technical estimates of the costs of production, prepared in the Gun Ammunition department, were becoming available. By this time the possibilities of extending further the policy of forming local Boards of Management were approaching exhaustion. No further Boards were created after 9 December of this year. There was now a substantially improved prospect of the supply of the smaller natures of shell overtaking the demand when the existing contracts should yield their full deliveries. It was felt that the time had come when the Ministry ought, in considering further contracts, to take more strictly into account the placing of orders in the most favourable markets.

Some of the causes which had led to extravagant prices being paid for shell may here be reviewed.²

In the first months of the War, while supplies were still purchased on the old system, competition had broken down under the enormous increase of requirements to such a degree that in many cases the whole of the tenders made did not suffice to meet a demand, and it was necessary to accept them all, though the highest prices quoted might show that the firm offering them was unable to compete on a commercial basis. Under these conditions, the armament firms almost at once found themselves in a position to dictate what prices they chose,

¹ See P.A.C. Report (1916), Mr. Lever's evidence, Qu. 2888 ff.

² See Memorandum upon Prices paid in Contracts placed by Local Boards of Management, by Mr. Jenkins (8/11/15). 94/Gen./291.

and the Contracts department, to a large extent, lost its power of bargaining.

The policy of extending sub-contracting through the agency of the armament firms¹ left those firms masters of the situation, and had no tendency to lower prices paid to the main contractors. In the first quarter of 1915, outside engineering firms began to enter the field as direct contractors, and some of them—for example, the Rees Roturbo Manufacturing Company² and the Austin Motor Company—accepted prices much lower than those which were being paid to the experienced manufacturers. At this time, however, owing to the failure of the armament firms' sub-contractors, demands were more urgent than ever, and the War Office was faced with the certainty of a serious shortage of ammunition in the summer. When representatives of new firms were sent by the Military branches to the Contracts department, instructions were often given that, while the best bargain possible should be made, the offer must on no account be refused. The result was that, partly for this reason, and partly owing to the rise in the cost of labour and materials, the prices of the armament firms, instead of being reduced by competition, were in some cases actually raised.

In March and April, Co-operative Groups for manufacture of shell of the smaller calibres came into existence under the Armaments Output Committee. This new organisation of business men worked for the first few months to all intents independently of the old-established departments at the War Office. The local committees grew impatient of delays, and brought pressure to bear on the Department, with the result that it was felt that some contracts at any rate must be settled at once at all costs. In several cases instructions were given for contracts to be made, although it was pointed out that the terms were not advantageous. The plea of urgency was as forcible as ever and overruled considerations of economy. Several committees took the matter into their own hands and placed contracts without obtaining formal sanction.

In the first two months after the formation of the Ministry, for want of a clearly defined scheme of office organisation, it was not fully understood throughout the Ministry that all prices must be approved by the Contracts branch. It was necessary to assert this principle in the instructions issued by the Director-General of Munitions Supply³ in September. Hence the Contracts branch was not seldom committed to a price before the question of making a contract had been referred to it at all. The prices of certain types of shell or fuze,

¹ On this policy see Vol. I., Part III., p. 2.

² This firm specialised in 8-in. shells and gave the largest total output from any single source during the War. The heads of the agreement—one of the earliest of such agreements—were signed on 26 December, 1914. The price was roughly two-thirds of that paid to armament firms.

³ See Vol. III., Part I., p. 19.

for example, which were widely quoted as standard prices throughout the country, were fixed without consultation with the branch.¹

The offer of attractive prices may have been justified by the intention of encouraging manufacturers to take up the work rapidly. But the natural effect was to raise the prices for other supplies. Manufacturers could not be expected to make (say) 13-pdr. shell at a reasonable price, such as 14s., when it was widely known that 23s. was being offered for unlimited quantities of 18-pdr.

In the case of the contracts placed by the Ministry in the first few months of its existence, a six months' order was required to induce the new firm to give up its ordinary work and take to munition manufacture. This meant that there was no prospect of making any considerable reduction until 31 March, 1916. Even after that date, no reduction could be proposed for firms just starting manufacture so long as the necessary supplies were still not being obtained. In November, 1915, when the question came up for serious consideration, it appeared that the prices quoted in the maximum price list of October could not be substantially cut down before 30 June, 1916.

The difficulties which had to be faced in the attempt to effect any such reduction were many and various.²

(1) At this time, orders placed in the United Kingdom covered the requirements of the shell programme only in the case of one or two of the least important natures. In a majority of cases the Ministry was dependent upon American supplies for approximately one-third of the bare requirements and for the whole of the surplus. From time to time new firms, attracted by the prices offered for first orders, were coming in; but it was doubted whether, apart from the 18-pdr. shell, even the bare requirements could be obtained without recourse to foreign sources of supply.

(2) In order to obtain the supplies already ordered in this country, it had been necessary to make use of some firms whose works were not laid out for economical production. Consequently, if any flat rate were fixed, it must be high. A varying rate, adjusted according to facilities of manufacture, would have been equitable; but Boards of Management, composed as they were of four or five of the leading manufacturers in each district, could not be expected to administer a sliding scale as if they had been officials of the Ministry. To obtain for their area worse terms than other Committees had obtained for theirs would be a reproach; and they were not prepared to make invidious distinctions in the prices given to firms who might be their own trade competitors. The effect was that the maximum price was, as a rule, the only price. Boards of Management, therefore, could not in general be relied upon to make bargains.

¹ A striking instance is the price of 23s. paid in Manchester for the 18-pdr. shell, which was settled on the occasion of Mr. Lloyd George's visit to the city with Sir Percy Girouard and Sir Frederick Donaldson in July. Other examples are the prices of £3 for the 4·5-in. H.E. Shell, £4 10s. for the 6-in. H.E. Shell, and 12s. 6d. for the No. 100 Fuze.

² See Mr. Jenkins' Memorandum (8/11/15) above cited.

(3) Nor was it practicable for the Ministry to make better terms in one area than in another. The prices given were published broadcast and formed the basis of the piece-rates fixed for the men, who were naturally discontented if they found that their rates were lower than those in a neighbouring area. This had occurred in the Midlands, when Coventry took a contract for 18-pdr. shell at 18s., while Birmingham was receiving 22s.

(4) In dealing with direct contractors, so long as the local Committees' prices were widely advertised, it was most difficult to make better terms. The prices paid to armament firms were very high—often higher than the maximum price allowed to the Committees, and the firms had been led to believe that the Department could not dispense with their supplies. To some extent, however, the armament firms no doubt regarded their work in connection with the new National Projectile Factories, which they were managing for the Ministry either at low fees or gratuitously, as an offset to the profits on their own contracts.

(5) A further point was that considerably higher prices were being paid in America for many of the articles that were also bought from local Committees; and until home production should become sufficient the American contracts could not be discontinued.

These difficulties, however, were not considered to be insurmountable. On 15 November, 1915, the Director of Contracts sent to the Director-General of Munitions Supply an important memorandum on the Reduction of Prices of Shells in the United Kingdom.¹ Mr. Hanson pointed out that the conditions under which contracts had been placed since the beginning of the War had not in general permitted of very satisfactory bargains being made. These conditions were now about to be changed. It was hoped and believed that no further expansion of requirements would take place. Most of the firms were already at work and the termination of their first contracts was in sight. An attempt might, therefore, be made to bring down prices of continuation orders to such a level as would give only a fair profit. A beginning should be made with shells, because they accounted for a very large part of the total expenditure, and the demands for shell were more nearly satisfied than some other demands. The proposals referred only to the United Kingdom; the conditions abroad were different and called for separate treatment.

The costs of making shells of various sizes had been worked out tentatively by the Technical Costing section; if the results could be depended upon, in some cases excessive profits were being made. The most conspicuous instance was the 18-pdr. H.E. shell. On the calculation of costs, this ought to be made for 10s. or less; whereas the fixed maximum price which the Ministry had agreed to pay through Boards of Management was from 20s. to 18s., and even more was being paid to several large direct contractors. Similar discrepancies appeared in the case of other types. It was true that the costs so calculated could not be applied to every firm. In the absence of proper facilities,

¹ D.A.O./Misc./57. 94/S./1853.

a much higher price than a calculation of costs would show might fail to yield a profit. But it appeared that there must be room for reduction.

The two chief classes of case to be considered were : (1) direct contractors, and (2) firms holding contracts from Boards of Management.

(1) *Direct Contractors*.—With direct contractors, and in particular with the principal armament firms, the War Office and the Ministry had entered into a great number of successive contracts. Owing to cancellations and changes of requirements and conditions, the records were intricate, but negotiations with individual firms could be begun as soon as it was ascertained when each contract ran out or could be terminated. Since the costs of materials and of labour were likely to rise, resistance must be expected ; but firms could be asked to show why the estimates of cost did not apply to their case. Success in lowering prices would depend on a reduction of those fixed for Boards of Management.

(2) *Contractors through Boards of Management*.—Owing to the emergency, the prices given to Boards of Management were liberal, but not generally higher, and sometimes lower, than those paid at the time to armament firms. Any excessive profit made by contractors working for these Boards was probably counter-balanced by dislocation of business. It was not likely that the Boards would act as instruments of the Ministry to reduce prices for individual manufacturers to a level that would yield only an ordinary profit. The Ministry would have to make each contractor prove his costs.

The point for decision was whether the Ministry should allow Boards of Management to continue paying fixed uniform and liberal prices with comparatively small reductions for continuation contracts, or make a serious attempt to lower prices of continuation contracts to such a point, in the case of each manufacturer, as to yield only a moderate profit. The former course would save millions of public money ; the latter would, no doubt, give rise to great discontent.

In forwarding these proposals to the Minister on 2 December, Sir Frederick Black wrote that, with the experience that had now been gained, it was practicable to revise prices, and it was proposed that Mr. Lever, Mr. Hanson, and Mr. Stevenson, with a representative of Mr. West, should take up the question with Boards of Management. Some tactful negotiation would be necessary to obtain substantial reductions without discouragement of effort and enterprise. He believed that there was here an immense field for economy.¹

Ministerial approval having been given, arrangements were made for approaching the Boards of Management on the subject of reduction of prices. In consequence of Mr. Hanson's proposals, it was necessary to postpone the issue to Boards of Management of the monthly list of requirements and the price list due on 28 November. A circular²

¹ D.A.O./Misc./26.

² Circular D.A.O /C.3.

was issued instead, which stated that the whole question of prices was being considered with a view to reduction. In the meantime, Boards of Management were requested neither to place any new contracts for munitions nor to make any arrangements for extending existing contracts beyond their fixed terminating dates without previously obtaining the consent of the Ministry as to quantities, terms, and prices.

The cost returns for National Shell Factories were now beginning to be available. The returns from Keighley and Huddersfield for the manufacture of 18-pdr. H.E. shell showed that, before allowing for depreciation of plant and for rejection on firing proof, Keighley had made 8,089 of these during November at a cost of 9s. 7d. per shell, and Huddersfield had made 7,030 at a cost of 13s. 2d. Keighley had during November its first full month's running; Huddersfield was not in complete running order. The returns for Keighley were taken to show that 18-pdr. H.E. shell should be supplied by the large and well-equipped contractors to the Ministry at a cost of 12s. 6d., with profit.¹

On 9 December an inter-departmental conference discussed the cost of 18-pdr. H.E. Shell.² The following costs were submitted :—

	Costs estimated by :	
	Mr. Fowler and Captain O'Brien.	Mr. West.
	s. d.	s. d.
Best practice	9 2	10 6
Medium practice	10 2	—
Inferior (small shops, etc.)	12 2	14 4

Mr. West proposed a flat rate of 15s., with the object of eliminating firms using their labour unprofitably.

As a matter of principle, Sir Frederick Black decided that the reductions in price must be carried through by agreement with the big firms. Separate negotiations were to be opened at once with the six largest firms, beginning with Messrs. Armstrong Whitworth, and one or two committees were to be approached independently. The result of the negotiations with the big firms would to some extent fix the price to be given to Committees.

At a further conference, held on 20 December,³ Mr. Lever reported that since the last meeting he had arranged with Messrs. Beardmore for 18-pdr. shell, a price of 12s. 6d. (plus 1s. 6d. for capital redemption) to 30 June, 1916.

¹ (*Printed Weekly Report*, No. 20, vii (11/12/15). Tables showing the early costs returns for National Shell Factories are given in Appendix II.

² 94/S/1969.

³ HIST. REC./R./500/41.

Mr. Stevenson said that conferences had been held with the Boards of Management of Coventry, Manchester, East Anglia, Bristol, and Leicester. At Manchester and Coventry the outstanding fact was the high prices for operations. If any substantial reduction were insisted upon, Coventry might be out of the market. The opinion of the meeting was that the skilled labour at Coventry might have to be directed to other munitions. Boards of Management frequently argued in support of an extension of present prices, that the more patriotic a group had been in getting to work quickly the more it had suffered from delays due to lack of machines, etc., in the early stages of the Ministry's existence. Other groups which had received contracts later would, by a sudden reduction of prices, be placed in a more favourable position. The same argument applied to promptitude in introducing unskilled labour. Manchester had stated that to train an unskilled worker cost £10, and hampered production at first. The firms who hung back were much further advanced in production, and so reaped more advantage from the original high prices.

A scale of prices proposed by Mr. Lever was considered in the light of the various classes of weekly output.¹ The scale finally agreed upon was as follows :—

					18-pdr. s. d.		4.5 in. s. d.
First 200 ..	..	..	..	..	16 0	..	45 0
Second 200 ..	..	..	..	..	15 0	..	43 0
Third 200 ..	..	..	..	..	14 0	..	41 0
600 and over ..	..	..	..	..	12 6	..	39 0

Sir Frederick Black proposed that these prices should be adopted as a basis for further negotiations.

On 5 January, 1916, a circular² was issued to Boards of Management announcing that, after consideration of the manufacturing costs of different classes of producers submitted at the conference with the Boards, it had been decided to abandon the plan of a maximum price list, such as had hitherto been issued, and to adopt a sliding scale, based on promised weekly output. The prices given in this circular were for contracts up to 30 June, 1916, for 18-pdr. H.E. and 4.5 in. H.E. shell. Prices for other munitions were to be settled later.

¹ The following schedule shows the proportion of manufacturers of different capacities as judged by output at this date :—

Promised deliveries	Firms		18 pdr. Shells	
	Number	Percentage	Number	Percentage
250 and less	186	61	21,172	14
251 to 999	66	21	31,526	21
1,000 and over ..	56	18	99,715	65
Totals	308	100	152,413	100

² D.A.O./C.4 (5/1/16).

The following table will show at a glance the substantial nature of the reductions :—

	18-pdr. H.E.	4.5 in. H.E.
Earlier Maximum Prices		
Fixed July, 1915	22s. (without fuze) falling to 20s. after three months.	60s. (without fuze)
Fixed Sept., 1915	22s. to 20s.	60s.
For repeat order after 31/3/16..	18s. to 19s.	54s. to 56s.
Fixed Oct., 1915, for orders to 31/3/16 only	20s.	60s.
For orders to 30/6/16	18s. to 19s.	54s. to 56s.
New Sliding Scale Prices		
Fixed 5 Jan., 1916, for orders to 30/6/16	14s. to 16s.	Mk. VI. 41s. to 48s. Mk. V. 39s. to 46s.

Under the reduced scale issued on 5 January, the following contracts were placed through Boards of Management in the course of the next three weeks¹ :—

H.E. Shell.	Board of Management.	Output per week.		Average price.
		Total.	Average per firm.	
18-pdr.	Coventry	8,100	675	14 8
	Manchester	33,500	930	14 0½
	Leicester	600	150	16 0
	E. Anglia ² (Total Contract)	150,000		12 6
4.5 in. Mk. V ³ ..	Hull	5,000	625	44 0
	Leicester	4,000	350	45 3
	Coventry	500	500	44 0
4.5 in. Mk. VI. ..	Leicester	1,000	350	47 3
	Coventry	400	400	47 0
	Blackburn	1,500	150	Scale prices
6 in.	Blackburn	900	112	82 6
	Do. (new contractor)	300	300	87 6

¹ HIST. REC./R./500/42.

² The East Anglian Committee also consented to a revision of their 4.5 in. contract, by which a certain proportion of their deliveries were to be made at 41s. instead of 55s.—(*Printed Weekly Report*, No. 24, vi (8/1/16).)

³ The prices for 4.5 in. were based on forgings being supplied by the Ministry at 18s., containing a profit of 6s. on Mk. VI. and 4s. 6d. on Mk. V.

The following were some of the larger shell contracts placed with direct contractors (other than the armament firms) on the new scale :—

H.E. Shell.	Contractor.	Output per week.	Price.
18-pdr.	Austin Motor Co. . .	20,000	s. d. 12 6
	Cravens ¹	8,000	12 6
	Dorman, Long ¹ ..	20,000	12 6
			(plus 1 0 for plant)
	Beardmore	32,000	12 6 (plus 1 6 for plant)
4·5 in.	Beardmore	6,000	40 6
			(including plant)
	Humber, Ltd. ..	4,000	Cost plus bonus.
			Max. 42 6
	Standard Engineer- ing	1,500	Do. 42 6
	Sheffield Simplex ..	8,000	42 6 (less depreciation)

II. Negotiations with the Armament Firms.

In December, 1915, the Ministry gave the chief armament firms notice to terminate their running shell contracts, and intimated that the prices were to be reconsidered.² The negotiations which followed were reviewed in a Report by the Finance Committee on Economy, dated 24 January, 1916, of which the following is a summary.³

The following armament firms had been invited to quote reduced prices to take effect on the expiry of their running contracts and of others terminating on a fixed date :—Sir. W. G. Armstrong Whitworth & Co., Messrs. Vickers, Ltd., Messrs. T. Firth & Sons, Messrs. Hadfield, Ltd., the Projectile Company, Ltd.

Messrs. Armstrong Whitworth had declined to discuss reductions. The general result of the meetings with the other firms had been that they admitted that some reduction was possible ; but it was clear that their views as to prices differed widely from the estimates framed by the Ministry. They stated that they did not desire an unreasonable profit, but repeatedly rejected the Ministry's suggestion that, in order to arrange a reasonable profit, they should submit their actual manufacturing costs. The little information they had been induced to furnish was obviously of small value. No reference had been made to the powers then being sought under the Munitions of War (Amendment) Bill to investigate books.⁴

¹ A detailed account of the negotiations with Messrs. Dorman Long and Messrs. Craven is given in Appendix III.

² 94/S./1977 and 2048.

³ HIST. REC. /R./500/42.

⁴ See above, p. 6.

When asked to state what they considered to be a reasonable rate of profit, not on capital, but on the cost, Messrs. Hadfield said they would be satisfied with 10 per cent. ; Messrs. Vickers suggested 20 per cent. It was obvious that even 10 per cent. would represent a very high return on the capital employed. Further, the greater the volume of production, the lower would be the cost per shell.

The following table showed the contrast between the prices paid at the time to the five firms concerned and the table of costs :—

Shell.	Estimated Cost (average practice, plus 10 per cent. for contingencies).	Prices proposed by the Ministry.	Armament firms' present prices.				
			Armstrong.	Vickers.	Firth.	Hadfields.	Projectile Co.
<i>H.E. Shell.</i>	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
18-pdr. ..	11 3	12 6	Not fixed	20 0	—	23 0	—
4·5 in. ..	27 0	34 0	47 0	52 0	60 0	63 9	65 0
Mks. V & VI	to 29 0	(plus change over 1s.)					
60-pdr. ..	42 4	47 6	60 0	63 0	70 0	82 4	—
6 in. ..	61 0	68 0	80 0	—	99 0	—	90 0
		(plus change over 6d.)			(U.S.A.)		
8 in. ..	125 6	142 6 ¹	—	—	240 0	—	—
9·2 in. ..	193 0	210 0 ¹	262 6	287 0	—	305 0	295 0
			(plus plant)				
<i>Shrapnel.</i>							
13-pdr. ..	13 0	14 3 ¹	—	16 0	—	—	15 6
18-pdr. ..	17 0	18 6 ¹	17 6	17 8	—	—	20 0
60-pdr. ..	51 5	56 0 ¹	—	67 6	75 0	—	60 0

The armament firms claimed a scale of prices higher than those paid to other firms mainly on two grounds. First, they had rendered special services to the Government by delivering shell promptly in the great emergency at the outbreak of war, and they produced high-class work. This was admitted by the Ministry, but it was pointed out that the very generous prices hitherto paid had provided full compensation. Secondly, they claimed that their establishment charges were much higher than those of an ordinary engineering firm or of other shell-makers, because they had to support, in some cases, a world-wide selling organisation ; they kept up a costly General Office and Drawing Office organisation ; and some of their chief departments (e.g., armour plate) were not fully employed. The Ministry pointed out that departments other than shell-making doubtless yielded a rate of profit sufficient to bear these special expenses, which could not reasonably be thrown on the cost of shell. Also it was understood

¹ Not yet offered to contractors.

that ample reserves had been accumulated to meet the abandonment or suspension of manufacture such as armour plate. In the case of Messrs. Vickers, at least, the cost of the selling organisation had, it was believed, been amply met by the commission earned on orders placed in America for the Government.

It had been suggested that uniform prices should be paid to all the firms referred to ; but there were objections to this. Some firms pleaded special local difficulties, such as high piece-work rates or the class of plant employed. Others had been assisted in the purchase of plant by large Government grants, sometimes repayable, sometimes not. A uniform price would not be fair to both favourably and unfavourably situated contractors. The negotiations had been brought to a stage where it rested with the contractors to decide whether they would submit their costs or offer fresh quotations. Arrangements had been made to obviate any slackening of production while negotiations proceeded.

The only conclusions that could at present be reached were that past prices had contained an excessive profit, which the firms were probably unwilling to disclose ; that their system of cost accounting was in some cases incomplete and illusory, and, if corrected, would disclose the actual costs ; and that the organisation and management of their works was inferior to those of other shell-makers. Messrs. Beardmore were in an exceptional position because they had, since the beginning of the War, been making various types of shell without a definite contract. A scale of prices, lower than those paid to the other firms and admitted to be reasonable, had been arranged up to 30 June, 1916.¹

Two alternative courses were proposed. Accurate recent manufacturing costs might be asked for and verified under the new powers, and a profit offered of about 10 per cent. on the ascertained costs. Or a co-operative form of contract, such as had been accepted by several of the new makers, might be offered. Under this system, the shells were charged at actual cost plus (a) a fixed sum per shell to encourage production, and (b) to encourage economy, a proportion of the savings between the actual cost and a fixed maximum payment or standard price.

The above Report was finally approved by the Finance Committee on Economy on 25 January and submitted to the Minister.

The next step was to interview the firms collectively. Representatives of Messrs. Vickers, Armstrong Whitworth, Cammell Laird Hadfield, Firth, and the Projectile Company, were invited by Dr. Addison to a conference on 31 January, 1916, in order that the Ministry might ascertain their views with regard to the prices of the more common types of shell, about which negotiations had already taken place with the individual firms.²

¹ See the table given above, p. 44.

² 94/S/2627.

Dr. Addison said that there were three possible ways of fixing the prices for shells :—(1) To agree on a uniform price ; (2) to ascertain the cost in each case, and to allow an agreed percentage over it for profit ; (3) a “ co-operative ” scheme, such as had been agreed on with some Scottish firms ; the Ministry to pay the cost of material and labour and the actual establishment charges, plus a certain bonus per shell, and in addition to allow one-fourth of any reduction in cost below a fixed maximum charge per shell. He intimated that the actual costs of production in Government Factories had now been ascertained.

Some representatives urged that the cost of production was very much greater in an old-established firm than in a small new factory erected for one special purpose, and that there were special charges (*e.g.*, for experimental work, gun ranges, submarine testing stations) which should be taken into account. Mr. Jack (Messrs. Hadfield) added that some regard should be paid to precedent. The War Office in peace time had given Messrs. Hadfield millions of pounds worth of orders at 25 per cent. profit, which meant really 33 per cent.

Dr. Addison agreed that full allowance should be made for special costs which could properly be charged to the production of shells under consideration ; but he did not admit that (for instance) any part of the cost of submarine testing stations should be included in the cost of shell.

Colonel Firth said that the firms were prepared to accept a smaller percentage of profit than in normal times, but that the Ministry's offers were below the minimum net cost of working. The system of bargaining with individual firms was unsound in principle.

Dr. Addison, however, did not agree to the suggestion that a committee, with manufacturers' representatives, should be appointed to fix prices. He handed round a list of prices fixed by the Finance department for deliveries up to the end of June, 1916, explaining that these were based on ascertained costs and were not to be taken as minimum prices or as a basis for bargaining.¹ Large firms, whose names he refused to give without their permission, had already taken substantial contracts at these, or (in some cases) at lower prices.² If any firm would not accept these prices they must satisfy the Ministry that their reasonable costs were in excess of those on which the prices were based. Full information as to the Ministry's costs would be placed at the disposal of any firm, and allowance would, of course, be made in individual cases for any capital advances which might have been made.

The representatives of the firms agreed to consider the prices among themselves and to meet Dr. Addison again on 3 February.

At this second conference,³ Sir Trevor Dawson (Vickers) stated that the firms represented had considered the prices offered by the

¹ This list (together with the counter-offers of the firms) is incorporated in the memorandum of the further conference on 3 February, given below, p. 48.

² See the table on p. 44.

³ At this Conference the same firms were represented as on 31 January. 94/S/2627.

Ministry and now submitted their own counter-offers. The prices offered by the Ministry and by the firms were as follows :—

Shell.	Promised Weekly Output.	Prices offered.	
		M. of M.	Firms.
<i>H.E. Shell.</i>		£ s. d.	£ s. d.
2.75 in.	1,000	0 11 0	} No offer
	2,000	0 10 6	
	2,000 and over	0 10 0	
13-pdr.	1,000	0 11 9	
	2,000	0 11 3	} 0 14 8
	2,000 and over	0 10 9	
18-pdr.	3,000	0 13 0	
	4,000	0 12 9	
	5,000 and over	0 12 6	} 1 19 6
4.5 in. Mark V..	—	1 13 6	
Mark VI	—	1 14 0	
60-pdr. Mark V	—	2 9 6	
Mark VI	—	2 10 0	} 2 12 6
6 in. Mark XV	—	3 7 6*	
Mark XVI	—	3 8 0*	
8 in. Mark III ..	—	7 15 0	
9.2 in.	—	10 10 0	7 17 6
12 in.	—	20 5 0	11 7 6
			21 2 0
<i>Shrapnel.</i>			
13-pdr.	—	16/- (17/- to 30 April to new Contractor)	
18-pdr.	—	0 18 9	0 18 9
60-pdr.	—	2 15 0	2 17 6

Dr. Addison and the officers of the Department retired to consider the offers made by the firms. When the meeting was resumed Dr. Addison announced that the Ministry were prepared to accept the prices proposed by the firms for the following shells :—

<i>H.E. Shell.</i>		£ s. d.
60-pdr. Mark V and VI		2 12 6
6 in. Mark XV and XVI.. ..		3 10 0
		(plus 6d. for change over).
8 in. Mark III		7 17 6
9.2 in.		11 7 6
12 in.		21 2 0
<i>Shrapnel.</i>		
18-pdr.		0 18 9
60-pdr.		2 17 6

* Plus 6d. for change over.

Note.—1. The Ministry's prices are on the basis of steel at £15 per ton uncut for sizes up to and including 6 in., or £16 per ton cut into billets of not less than 43 lb. For steel over 6 in. up to and including 9.2 in., £16 10s. uncut, or £17 10s. cut into billets. For steel above 9.2 in., £17 10s. uncut, or £18 10s. cut. Bullets at £44 per ton, variations to affect prices correspondingly.

2. The Ministry's prices are based on cost, including 33½ per cent. per annum depreciation on plant, 10 per cent. on buildings, and interest at 6 per cent. on working capital. Repairs to plant (exclusive of small tools separately allowed) at 10 per cent.

It was agreed that the price for 13-pdr. Shrapnel should be fixed later on the same basis as that adopted in fixing the price of 18-pdr Shrapnel.

Dr. Addison stated that he could not accept the prices offered for 18-pdr. H.E. and 4·5 in., and he repeated that large contracts had already been placed with other firms at the prices offered by the Ministry. He suggested that the firms present should agree, on the expiry of their present contracts, to continue supply at the prices offered by the Ministry; that, in the interval, there should be a friendly comparison of costs by the firms and the officers of the Department; and that, if it was shown to the satisfaction of the Ministry in any case that the costs of manufacture exceeded the Ministry's estimates of cost, the Ministry should pay such a price as would allow a fair profit, provided that the maximum price should not exceed the quotations submitted by the firms. It was explained that by a "fair profit" was meant 10 per cent. above the approved costs of production.

The representatives of the firms present agreed to this proposal with the following reservations. Messrs. Armstrong Whitworth were not prepared to agree in regard to 18-pdr. H.E., as they wished to go into their costs more closely; but they would discuss the matter separately with the Ministry on the general lines proposed. Messrs. Firth could not accept the price offered for 4·5 in. in respect of contracts placed with sub-contractors, and proposed to discuss this point separately with the Ministry. Messrs. Hadfield were unable to come to a decision as to the price for 4·5 in., and proposed further discussion.

Dr. Addison explained that the Ministry's offer was for shells delivered and accepted up to 30 June, 1916, and promised that three months' notice would be given of any changes in price, to take effect not earlier than that date. It was agreed that the prices offered on both sides were on the basis of the buildings and plant being the property of the contractors, having been purchased by them from their own funds. In cases where grants of capital, whether in cash or machinery, had been made by the Government, any necessary adjustment should be made individually with the firms concerned.

In acknowledging the receipt of the memorandum of proceedings at this meeting, Mr. Hichens, Chairman of Messrs. Cammell Laird, wrote :—

"No indication has been given by the Ministry that these schedule rates will apply to all alike in all future contracts unless and until they are modified for all alike. It may be that this is the intention, and that there is no foundation for the statements so frequently made that different prices are paid to different firms for the same number and the same type of shells. Or it may be that differentiation is regarded by the Ministry as expedient. The belief that it exists is undoubtedly a cause of dissatisfaction among contractors."

This point was referred by Mr. Hanson to the Assistant Financial Secretary, who decided that the principle of uniformity might be applied to shell contractors up to 30 June, but was not a principle to be universally followed.¹

In order to give effect to the arrangement agreed upon at the conference, a clause of the following form was inserted in contracts for 18-pdr. and 4·5 in. H.E. shell, running to June or September, 1916 :—

“ If the contractor shows to the satisfaction of the Minister that the actual cost of manufacture of the shell to be delivered under this contract on or before the 30th June, 1916, exceeds the price payable for each shell under this contract, the Minister will increase the price payable for the said shell by such sum not exceeding £1 19s. 6d. each for the 4·5 in. or 14s. 8d. each for the 18-pdr. as will, in his opinion, allow a fair margin of profit to the contractor.”²

In March the Ministry terminated a number of shell contracts with the armament firms who had attended the conferences, deliveries on which had either not begun or were seriously in arrear. New contracts at the revised prices were proposed.³ These contracts were to run to 30 June, 1916.

Some remarks made by Mr. Lever in his evidence before the Public Accounts Committee in May, 1916, gave rise to a passage at arms between Messrs. Cammell Laird and the Ministry. Mr. Lever described the measures that had been taken to reduce shell prices. Referring to the armament firms he said :—

“ We first tackled the big armament firms, and we showed them our costs. They only said : ‘ That cannot be done ’ ; and then we said : ‘ Produce your costs. ’ That did not bring the costs along so far as they were concerned, but we have the power under the Munitions Act to see the books if we want to, and so they immediately brought the prices down.”⁴

In a letter to the Minister of 13 October, 1916, Mr. W. L. Hichens, of Cammell Laird & Co., objected to the statement that his firm were forced against their will to accept a substantial reduction in the price of shell under the threat of an examination into their cost accounts, and the implication that the firm had endeavoured to maintain prices at an unreasonable level. He claimed that an unqualified denial

¹ 94/S/2627.

² 94/S/676.

³ Action taken on 94/S/1977 (Armstrong) ; 94/S/676 (Cammell Laird) ; 94/S/2208 (Projectile Co.) ; 94/S/1825 (Hadfield) ; 94/Misc./66 (Vickers) ; 94/Gen./340 (Firth).

⁴ P.A.C. Report (1916). Minutes of Evidence. Qu. 2819.

should be published or else that an enquiry should be held.¹ The letter was published in the *Times* of 16 October. The Minister, in reply, declined to admit that Mr. Lever's statement was in any way misleading. He called attention to the fact that on 18 November, 1915, when Mr. Hichens was absent on a public mission, two directors of Messrs. Cammell Laird had been told that it was intended to reduce the price of 18-pdr. H.E. shell from 20s. to 18s., and had declined to make this reduction. On 30 November the company had written claiming that under their existing contracts they were entitled to make this shell at 20s. for a period "not less than the duration of the War." After the meeting with Dr. Addison in February, 1916, their price had been reduced by 35 per cent.

In the debate on the Report of the Public Accounts Committee in the House of Commons on 24 October, Mr. S. Roberts, a Director of Messrs. Cammell Laird, attacked Mr. Lever's statement as a "gross and libellous charge."² Dr. Addison gave an account of the negotiations with the firm, and at the same time pointed out that it was not to be inferred that the prices paid for shell under contracts made at the beginning of the War were unreasonably high at the time when they were arranged. He denied that Mr. Lever had made any scandalous charge against anyone.

In accordance with the promise made at the February conference that three months' notice should be given of modifications of the agreed prices for contracts running from 30 June to 30 September, Dr. Addison wrote on 5 April, 1916, to the armament firms represented at the conference to inform them of the changes proposed in the following terms.³

"In view of the short time which has elapsed since the conference it is not proposed materially to alter the rates and conditions then agreed on. The memorandum will, therefore, stand unaltered except for the following :—

(1) In order to avoid complexity, it is proposed that the prices shall in each case apply to all Marks of the shell being manufactured.

(2) The 6d. extra for changing over was merely a temporary arrangement and will now lapse.

(3) In the case of the 18-pdr. H.E. and 4·5 in. H.E., in view of the further information available, the Ministry now propose to fix the prices at 12s. 6d. and 33s. 6d. respectively.

(4) In view of the permission to use steel for the socket and tube, the price of the 18-pdr. Shrapnel has been reduced to 18s. 6d.

¹ 15/Muns./2710.

² *Parliamentary Debates* (1916), *H. of C.*, LXXXVI., 1023.

³ 94/S/1977.

The new prices will therefore be as follows :—

<i>H.E. Shell.</i>							£	s.	d.
18-pdr., all Marks	..	..	..	..	..	..	0	12	6
4·5 in.	..	..	..	..	..	..	1	13	6
60-pdr.	..	..	..	..	..	..	2	12	6
6 in.	..	..	..	..	..	..	3	10	0
8 in.	..	..	..	..	..	..	7	17	6
9·2 in.	..	..	..	..	..	..	11	7	6
12 in.	..	..	..	..	..	..	21	2	0
<i>Shrapnel.</i>									
18-pdr.	..	..	..	..	..	..	0	18	6
13-pdr.	..	..	..	..	..	..	0	16	0
60-pdr.	..	..	..	..	..	..	2	17	6

Note 1.—The above prices are on the basis of steel at £15 per ton uncut for sizes up to and including 6 in., or £16 per ton cut into billets of not less than 43 lb. For steel over 6 in. up to and including 9·2 in., £16 10s. uncut, or £17 10s. cut into billets. For steel above 9·2 in., £17 10s. uncut, or £18 10s. cut.

Note 2.—They are also subject to variation in case of any material change in labour conditions.

Note 3.—They are subject to special deductions in the case of individual firms to compensate for grants of plant, machinery, or capital made by the Ministry on former contracts."

On 30 August, 1916, after a conference with the firms, Dr. Addison communicated a list of prices for contracts to run from 1 October to 31 December. Most of these prices showed a slight increase on those given above.¹

A further reduction in shell prices was agreed with the armament firms at a meeting on 7 March, 1917, for the quarter April to June, 1917. The new prices included the 5s. rise in wages granted by the Committee on Production from 1 April. A table showing the new prices is given in Appendix IV, from which it appears that the total weekly saving effected by the reduction of prices from those ruling in the previous quarter amounted to £9,356 5s., equivalent to a saving for the quarter of £121,631 5s.

It was several times stated publicly that on the gun ammunition estimates for 1917-18 a saving of £43,000,000 had been effected by the reduction of shell prices. The heads of the Finance department never accepted responsibility for this statement. The totals of the table on which it was based are given in Appendix V. From this it appears that £12,000,000 of the saving was due to alterations in design and materials. The reduction in prices accounts for the remaining £31,000,000.

III. Opposition of Contractors to Cost Investigations.

In the summer of 1916, a number of controlled firms combined to oppose cost investigations and showed an inclination to resist the Ministry's practice of basing prices on costs. A circular clearly advising resistance was issued by the London and Eastern Counties

¹ 94/S/4198 (P.M. 2).

Association of Controlled Establishments. The Minister took official notice of it and warned the parties concerned.¹ The Finance Committee on Economy resolved that the Minister's powers under the Munitions of War Act and Orders in Council should be used to the full, but only after reasonable endeavours had been made to ascertain costs by mutual consent. This view was communicated to the Admiralty and the War Office, with a suggestion for joint action. An unofficial conference was accordingly held, on 22 August, between Contracts and Finance officers of the three Departments, with Dr. Addison in the chair.

Mr. Wintour stated that the War Office had gone further than the Ministry of Munitions. They had fixed a provisional price for a commodity with the whole industry, leaving it to be understood that if on investigation of firms' books the price was found to be too high, it would be lowered and refunded. Investigation was accepted with some grumbling. Expert investigators had been so chosen that the knowledge gained might not be used for purposes of trade rivalry. The whole wool output had been requisitioned, and all intermediate prices up to the final product had been fixed by an examination of the costs of processes.

Mr. Smallwood, who bought aircraft for the Admiralty, said that, in matters of price, he was partly guided by the advice of technical officers; but he tried to compare the costs of similar machines. Contracts were placed on the basis of a fixed price to be agreed as soon as possible. When some machines had been built under a contract, an accountant was sent to ascertain the costs and how much profit was included in the quotation. The price was then settled. Prices were not settled by the Admiralty Contracts department, but by professional officers. Dr. Addison observed that this was not done at the Ministry, because the estimates of professional experts were often far from the true costs. He considered that a Contracts department should consult costing experts. The Admiralty representatives, however, stated that their system could not be changed. The fixing of prices would still rest with professional officers, though they might take costs into consideration; the Contracts department could exercise no check.

It was proposed that the three Departments should follow up costs for classes of goods which were purchased by them all, and exchange results. A schedule of such articles (*e.g.*, wire rope, cordite, shell, etc.) should be made, and one Department should do the work of all. A small committee of the three Departments, consisting of costing and accounting experts, should be formed to deal with complaints from contractors as to the manner in which investigations were conducted.²

¹ Minutes of Finance Committee on Economy, 28 August, 1916.

² HIST. REC./R./360/33. Dr. Addison also met a deputation of the Controlled Establishments Association. He found that it was the action of the War Office and the Admiralty, rather than of the Ministry of Munitions, that had prompted their complaints.

In accordance with this proposal, a Joint Committee on Cost Investigations was appointed. One of the questions taken up by the Committee was the very difficult problem: what establishment charges were to be allowed. The Committee's decisions were embodied in a memorandum¹ in January, 1917, and measures were taken to ensure that the cost investigations undertaken by the several Departments should be on a common basis. A Costs Register was instituted, containing notes of all accountancy costs investigations undertaken by any of the three Departments.

With reference to the observations in the Report of the Inchcape Committee on the want of uniformity in costing methods, Sir John Mann wrote on 3 April, 1918, that a natural development of what had already been done towards inter-departmental co-operation would be the centralising of all investigations under one authority, as the Committee had suggested. There would be several advantages in grouping all the experts together. The best men could be put on the most intricate and important work, and specialists would be able to concentrate on individual industries.

Time and expense would be saved in travelling. If costing were successfully centralised, it might be a step to centralised buying. In September, 1918, the Colwyn Committee decided to make the Joint Committee on Cost Investigations one of their own sub-committees.²

In the summer of 1917, the protests against cost investigations were renewed. The question was raised by the Controlled Establishments Association at a conference with the Minister on 10 July. Their contention was that prices should be fixed for classes of goods on the basis of cost investigations limited to a few typical cases. The object was two-fold: to reduce the number of enquiries into actual costs of manufacture, and to obtain fixed prices, avoiding the uncertainties involved in postponement.

In preparation for this conference, the Joint Committee of Contracts and Finance Officers had compared notes on the practice of their several Departments.³ It appeared that the War Office had adopted a form of contract for new types of manufacture, providing for acceptance of the contractor's terms, subject to investigation of costs and revision of price, if the investigation showed that the price contained an excessive profit. The Admiralty to a large extent based contracts on engineering costs worked out in consultation with Ministry of Munitions engineers, and tried to fix the price at an early stage of manufacture. They paid for ships on a cost basis with a lump sum profit. The Committee agreed that in new classes of manufacture there must be some delay. It was essential to get down to cost as the basis of contract prices; and the practice had resulted in large economies. The Controlled Establishments Association

¹ *Memo. J.C.C./1*. The decisions differed from those embodied in the Second Report of the Colwyn Committee (31 October, 1918).

² Munitions Contracts Board Minute 572.

³ Minutes of 6 July, 1917.

received an answer in this sense, but they were not satisfied. On the contrary, they pressed for the abolition of the system.

On 8 August, the Minister received a joint deputation representing the Federation of British Industries, the British Manufacturers' Association, and the Central Council of the Association of Controlled Firms. The following proposition (among others) was advanced:—

“That, as a general principle, prices should be fixed at the time Government contracts are placed, and that the system of deciding prices on completion of contracts in the light of ascertained costs should be discontinued. The point will also be made that, where it is found necessary by the Ministry to examine into costs, the certified figures of a duly qualified accountant should suffice.”

No conclusion was reached at the conference, which was adjourned to 6 September.

In view of these protests, the Minister asked the Financial Advisory Committee to express their opinion “upon the extent to which manufacturers' costs of production should be verified, in connection with negotiation of prices of goods supplied to the Ministry.”¹

The Committee's report, dated 3 October, 1917, explained that investigation was made in the following cases:—

“ (1) (a) where a fixed price has been agreed, but the manufacturer presses for an increase for a new contract; or (b) the Government requires costs of production before placing a new contract, so that, if possible, a reduction upon the earlier prices may be obtained;

“ (2) where price is left for settlement following verification of cost;

“ (3) where the contract terms provide for payment based on cost;

“ (4) where a maximum price is wanted to be fixed, such as for pig iron, and the costs of a group of manufacturers are investigated.”

The only cases in which a manufacturer might be expected to object were those where the Government required costs of previous production as in (1) (b), and (4). Under (1) (a) no objection could stand; and in cases (2) and (3) the investigation followed directly from contract terms already agreed.

Apart from the actual fixing of prices, the investigations resulted in advantages on both sides: to the Minister, in shortening negotiations, and to the manufacturers, many of whom were led to institute for the first time a proper costing system in their own works.

Verification was amply justified in cases where competition had lapsed. The need for enquiry was no doubt greater in the earlier days than now. Except for absolutely new articles, close prices might now be said to be known, or fair prices to be deducible from analogous

¹ Remit of 2 July, 1917.

branches of manufacture. Even for new articles, the Ministry had accumulated data which should make it possible to fix a very close figure. The Committee considered that, except where costing was provided for in the contract, the Minister should, while retaining all the rights in his hands, exercise them only when there was evidence that the manufacturer was either already securing or holding out for a price appreciably above what was fair. Costing investigation was an important instrument in bargaining, to be used with discretion. Where the difference between the manufacturer's and the Contracts department's estimates of price was small, the Excess Profits Duty, since most manufacturers were making excess profits, provided a margin of protection to the State, though, of course, no consideration of recoupment through taxation should be suffered to creep into negotiations.

When investigation was made, the point to which it should be carried must vary with circumstances. Where, for example, technical cost estimates based on an ideally suitable plant differed appreciably from the actual costs with a comparatively inefficient plant, the costing authority would decide how far it was necessary to pursue the enquiry.

The Ministry was prepared, after due enquiry, to accept, in some cases, cost figures certified by the contractors' own auditors. This method saved the time of the Ministry's accountants, and obviated manufacturers' objections, particularly in cases where they feared that knowledge of secret processes might leak out.

In November, 1917, the Association of Chambers of Commerce presented a Memorandum¹ stating that the opinion had been expressed to the Association that prices for war supplies should not be fixed, as at present, on production cost, but on a fair valuation. It was argued that to base price on production cost was to penalise the efficient, and to subsidise the inefficient manufacturers. The firm which, by using better machinery, by ingenuity, or by good organisation, produced at a lower cost, obtained a lower price; and competitors were invited to observe their methods of operation and use them for their own benefit, though they might have achieved the same result by using their own money and brains. It was further objected that the allowance for overhead charges was based on an average figure, not on the actual figures of the firms; it was too high for some, too low for others. There was, moreover, no incentive to economy, since the higher the production cost the higher the price. The Council suggested that a better method would be to fix a definite price for each store, this price to be common to all manufacturers. The work of calling for competitive tenders would thus be saved.

A draft reply to these representations was considered by the Munitions Contracts Board on 30 November. It was pointed out that, where a limited supply of a standard article was required, a uniform price, as suggested, was already fixed in many cases. Where there was a shortage of supply, however, it was necessary to manufacture on plant not suited to the purpose, and a uniform price could be agreed

¹ On Competitive Purchasing by Government Departments, 12 November, 1917. Munitions Council/373.

upon only if the Government was prepared to pay a very uneconomical price. There were several other obstacles to uniform prices where conditions varied. Some contractors received advances for plant ; the arrangements for supply of material might be different ; a contractor might, for special reasons, be allowed a certain licence in design, and so on. The Ministry would try to treat contractors fairly, and not to penalise efficiency.

At a meeting of the Board on 7 December, 1917, members of the Board said that it was their experience that, while meetings and deputations of contractors complained of costing systems, individual contractors were always ready to meet the Department. The opinion was expressed that difficulties arose chiefly through the tactlessness of some of the accountants employed.

IV. Report I. (1918) of the Select Committee on National Expenditure.

While associations of manufacturers were urging the Ministry to reduce or abolish cost investigations, pressure in the opposite direction was being brought to bear by the Select Committee on National Expenditure. In their Report of 6 March, 1918, the Committee reviewed the question of costs at some length. Since the Committee appears to have been misinformed on some points it will be necessary, in summarising their findings, to interpolate corrections of some of the statements of fact.

(1) The Committee dealt first with the information as to costs possessed by the Supply departments. The Chancellor of the Exchequer in his reply to the Committee's former Report¹ had stated that the Supply branches which negotiated with contractors were in possession of the costs of manufacture. The Committee stated that this "generally speaking, has never been the case. On the contrary, the whole history of the Finance and Contracts branches of the Ministry in their struggle to reduce prices, has lain in the continual effort to obtain information regarding the costs of manufacture which the Supply branches could not provide."

The Committee recognised that the Technical Costs section, originally developed in the Gun Ammunition department, had been of incalculable service to the Finance branches, and the co-operation of accountants and Supply officers in the Explosives department had yielded like results. "But no other Supply branch took similar steps, and consequently to this day there is lack of technical costing in most of the munitions."

[The Committee were ill-informed. The Aeronautical Supply department had technical estimators for engines and aeroplanes, and the Supply departments for machine tools, optical munitions, mechanical transport, and tanks, each had experts in technical costing. Technical estimates had been obtained for practically all types of ammunition,

¹ *Parliamentary Debates* (1917), H. of C., C., 988.

and for a large part of guns, agricultural machinery, tanks, trench bombs—in fact, for most engineering goods. In the previous year, about 2,500 technical estimates and about 1,000 accountancy investigations had been made. By November, 1917, comparatively few articles had not been costed, except in new departments (*e.g.*, Aeronautics) and for new articles.¹ In this, as in other matters connected with accounting, great progress had been made in the course of 1917. In April of that year, an enquiry had been made into the extent to which costing figures were used by the Contracts department. The results, which are given in Appendix VI, showed that a very large number of articles were then being bought without an accurate knowledge of costs; but by August the staffs of both the Accountancy and Technical Costs sections had been substantially increased, in spite of the great difficulty of finding competent persons.]

The Select Committee found that the costs of the National Factories, ascertained by Finance, not by Supply, were “in many cases the only automatic indications of efficiency which the Supply branches themselves possess.” “So far from having the costs of the firms with whom they deal, the Supply branches do not uniformly assist the Finance branches in ascertaining them under the compulsory powers which the Ministry possesses.” The Committee accused Supply officers of indifference to cost, and conjectured that they were disinclined to press too hard the producers in trades in which they had, in many cases, themselves been engaged. On the other side, the manufacturers were unwilling to reveal costs and trade secrets to men who might in the future be their rivals. Less difficulty was experienced by the Finance branches, whose officers were rarely manufacturers by occupation.

The Committee then gave alleged instances of “excessive prices paid by the Contracts branch so long as they had no other information to guide them than the opinion of the Supply branch as to a reasonable price.” They mentioned (*inter alia*) the very large reductions of prices for cordite and gun ammunition, which had been effected as a result of accountancy investigations.

[On this point it must be remarked that the prices reduced in these cases were prices on contracts placed by the War Office in 1914-15 before the Ministry existed. The savings on cordite had been effected by close co-operation of the Supply and Finance branches in the Explosives department. The savings on gun ammunition were chiefly the result of Mr. Lever’s work in ascertaining National Factory costs in the winter of 1915-16. The facts mentioned in this paragraph of the Report are rather a tribute to the effectiveness of the technical and accountancy costing of the Department, than a basis for any fair criticism of Supply.]²

¹ See Minute by Sir John Mann to Sir L. W. Evans (26 March, 1918).

² See Minute by Sir Keith Price.

The Committee recommended

“ that the Technical Costing section, whether removed from the Contracts branch or not, be immediately strengthened, and the work of all engineering costing in the Ministry be undertaken by it.”

They observed that National Factory costs, though very useful for comparison, were only of limited application. The investigation of private firms' books was notoriously difficult. Sometimes the firms objected; sometimes the books were in such a state that no reliable analysis was possible. Disputes arose with regard to overhead charges, and so on. Further, accountants, though they could ascertain the actual cost, and, with a sufficient basis for comparison, distinguish between low, average, and high costs, could not deduce the proper cost without technical assistance. Where the fixing of prices had been postponed until manufacture was sufficiently advanced to enable accountants to investigate the cost, enormous savings had been made; but there was the grave objection that the manufacturer had no inducement to keep his costs low, if he was assured of being paid the whole of his costs plus a percentage or a fixed sum of profit.

The remedy proposed was the extended employment of the Technical Costing branch, which could do for the Ministry what the rate-fixing and estimating staff does for a factory. Its numbers should be increased from some 20 to at least 50, and its operations should be extended to other classes of manufacture. The Committee were inclined to think this section should be detached from Contracts and perhaps associated with an Efficiency branch for all engineering work. It should, however, be kept independent of Supply, “ so that its results may be entirely free from any suspicion of compromise in the supposed interests of production.”

This last proposal closely resembled a scheme then being considered by the Minister. It was admitted in the Department that the creation of an Efficiency branch would strengthen both Supply and Contracts and reduce the number of accountants in the Ministry. The Controller of Contracts, however, put forward certain objections to detaching the section from his department. He remarked that technical estimates depended on accountancy investigations for oncost rates, and that it was desirable that the technical estimator should act from the same point of view as the Contracts officer who was to use his results in negotiation. He thought the Committee over-emphasised the value of technical, as opposed to accountancy costs. The former were merely estimates, and manufacturers were jealous of technical officers who might hereafter be associated with trade rivals. Mr. Webster Jenkinson (Director of Factory Costs) agreed that technical estimates, though very useful, could not replace, or serve the same purpose as the accountancy investigations now conducted by the Contracts department. The estimates were not (as the Committee said) based on “ ascertained times,” but very often on assumed times which proved incorrect in practice. In 1917, when Mr. Jenkinson had been responsible for cost investigations and for the negotiation of prices

in large contracts, this Technical section had been under him. He had found so many estimates unreliable that, at his request, a well-known engineer (Mr. Lee Murray) had been asked to examine every statement before it was submitted to him or to the Contracts department. Mr. Jenkinson suggested that Supply might develop the efficiency work already being done by the Efficiency section in the Shell department and by technical experts in the Gun Ammunition Filling department and in other branches.

The Munitions Contracts Board agreed on 15 March that costs, if asked for, should be furnished to Supply Departments by the Contracts officers concerned, not by the Technical Costs section. The general results, not the detailed figures, for individual firms should be supplied. On 12 April, the Board decided that Costs officers should be available for attendance at negotiations between Contracts officers and contractors, but need not always attend. The Technical Costs officer should act only as an adviser of the Contracts officer, not interfere with his discretion in coming to terms.

In accordance with the Select Committee's recommendations, the Technical Costs branch was considerably enlarged in the course of 1918. The following figures show the increase of staff :—

						January, 1918.		November, 1918.
Accountants	..	..	..	..	..	13	..	32
Engineers	..	..	..	..	..	15	..	57
Clerks	..	..	..	..	..	6	..	28
						—		—
Totals	..	..	..	..	..	34	..	117
						—		—

In the same period the number of investigations carried out weekly increased as follows :—Accountancy, from 15 to 35 ; Technical, from 16 to 142. There were also a number of audits conducted on cost-basis contracts.

V. Report II. of the Colwyn Committee.

In the summer of 1918 some influential members of the Federation of British Industries organised another protest against the principles and methods of costing and price-fixing adopted by Government Departments. On 7 October, the Finance Committee appointed a Sub-committee to meet representatives of the Federation and hear their complaints.

In discussion at the Munitions Contracts Board on 11 October, it appeared that the experience of the Board was that contractors' complaints were not against the methods or personnel of the Costs Investigation department. The grounds alleged were rather that prices negotiated after investigation of cost did not leave a reasonable margin of profit ; and that no account was taken of efficiency, the percentage of profit remaining the same, whether the goods were made

cheaply or expensively. It was stated that the second allegation was untrue; in many cases efficiency was recognised by a higher profit. No flat rate of profit was in use, each case being considered on its merits, always with regard to the recent decision that profit, where possible, should be reduced from a 10 per cent. basis to $7\frac{1}{2}$ per cent.¹ The Board was unanimous in agreeing that the abolition of costing would not facilitate the settlement of contract prices. Rather it was essential that the powers possessed by the Minister should be upheld, since they often gave the only basis for discussion of prices with a contractor. The Federation had alleged further that confidential information had been divulged to other contractors. The Board thought that, apart from an early case where Coventry Ordnance Works costs had been sent to Woolwich (not a contractor), this allegation was unfounded.

The Chancellor of the Exchequer referred the whole matter to the Colwyn Committee, which held several conferences with the Federation of British Industries. The Report,² dated 31 October, dealt with all aspects of the question.

The Federation had urged that in cases where contractors' accounts were audited by recognised public accountants the Government should forgo their right of inspecting firms' books and accept the accountants' reports. The Committee found that enormous savings to the nation had resulted from the inspection of books, and they recommended that the right should not be abandoned. At the same time, they thought that more use should be made of the certificates or reports of the firms' own auditors, and that the irritation caused by frequent enquiries might be avoided, if the contractors' auditors conferred with the Department concerned at the commencement of a costing, and ascertained what particulars were required.

Prime cost (expenditure on materials and productive wages) was frequently a matter for estimate based on expert technical opinion, and it was desirable that in such cases these costs should, with the help of experts, be discussed directly between the Department and the contractor. Otherwise, if cost were left to be determined at the conclusion of the contract, the contract would in effect be on the time and line basis, to which the Committee and the trade were in principle opposed. With regard to overhead charges, the Committee enumerated the items which they thought should not be included.

They recommended that payments to sub-contractors should not carry a full percentage of profit to the main contractor. Contractors should be required to disclose the extent to which the cost consisted, as regards manufactured or partly manufactured goods, of (a) sub-contracts, (b) supplies from departments of the contractors or from subsidiary undertakings controlled by the main contractors.

The Committee were satisfied that instructions were in force that costings should be conducted with every consideration for the difficult

¹ See above, p. 34.

² Copy in M.F./Gen./1711.

conditions in which contractors were working, and that arrangements to avoid overlapping investigations were being further extended. They believed that no private information had ever been improperly divulged ; but they emphasised that no precautions against disclosure should be omitted.

The recommendation with regard to scales of profit has been mentioned elsewhere.¹

The Federation had further intimated that the feeling had gained ground that Contracts departments had claimed the right finally to fix prices despite the representations of contractors. The Committee pointed out that contractors could appeal to the Minister concerned against harsh treatment, and that it was always open to them to have their prices fixed judicially, either by a Judge of the High Court, if the goods were requisitioned, or by an action at Common Law, when the Court would fix a *quantum meruit*. But the Committee thought that, if their recommendations were acted upon, a friendly spirit would be engendered which would lead in all instances to an amicable settlement.

This report was officially communicated to the Ministry by the Treasury on 28 November, 1918, with an intimation that the Treasury approved the recommendations.²

At the meetings of the Colwyn Committee there had been considerable discussion on a proposal to recommend the appointment of a small independent Conciliation Board, to whom important difficulties in fixing prices might be referred. It was pointed out that, late in 1916, the controlled establishments had made the same suggestion, but it had been rejected by both the Admiralty and the Ministry of Munitions. The Controller of Munitions Contracts was in favour of the appointment by the Minister of such a committee provided it should have no executive powers. Other members of the Colwyn Committee thought that the same or similar committees should be appointed for other services. It was agreed that the subject should not be referred to in the Report, but should be brought up again after consideration by each of the Ministers concerned.

The Controller of Contracts, in reporting these facts, stated the objections to the appointment of a Conciliation Board. (1) It might be held to interfere with the Minister's prerogative. This point, however, would be met by making the committee merely advisory. (2) The responsibility of the negotiating officers might be weakened, and a tendency created to refer disputes to the committee with consequent delay. The representatives of the Federation of British Industries had themselves indicated this objection. On the other hand, the Controller of Contracts stated that, in all his experience, he could recall only a few cases where serious deadlock had occurred. Contractors had repeatedly expressed themselves satisfied that they obtained just treatment. It was possible, however, that there might

¹ See p. 35 above.

² M.F./Gen./1711.

be serious discontent, which was not explicit, but suppressed through fear of incurring the displeasure of Contracts officers and consequent victimisation. Again, the right which every Contractor had to have his price settled by a Judge if his goods were requisitioned, or at Common Law, where a *quantum meruit* would be awarded, was naturally repugnant to contractors on account of the delay, the expense, and the exposure involved. It might be that they accepted prices reluctantly rather than go into court. The possibility of a hearing by a committee would remove the apprehension that harsh and unjust terms might be autocratically imposed by a Department, and might generally help in maintaining the good relations which prevailed throughout the great body of contractors.¹

¹ Munitions Council Document 417, 31 October, 1918.

CHAPTER III.

COST VARIATION CLAUSES.

I. Introductory.

The subject of the present chapter is the evolution of contract clauses providing for an increase of prices corresponding with rises in cost of labour and materials, where such rises were due to "direct Government action." This is a question of much wider interest than any ordinary matter of contract policy and procedure. It forms part of the history of the rise in rates of wages during the War and the consequent rise in prices. Its importance justifies treating it at considerable length.

From the early months of 1915 onwards, the Government, desiring to prevent stoppage of work, intervened in wages disputes and awarded increases from time to time to various trades and industries. An inevitable consequence was that manufacturers holding Government contracts complained. The regulation of wages was taken out of their hands. They were, after the acceptance of the Treasury Agreement of March, 1915, no longer allowed to resist a demand for higher wages by declaring a lock-out. They were compelled to accept arbitration and to abide by the awards of a Government tribunal. Such awards could not be foreseen and allowed for when the prices of their contracts were agreed upon. Their margins of profit might thus, during the course of their contract, be converted into a loss by Government action over which they had no control. A similar effect might result from a sudden increase in the price of material controlled by Government. They naturally pleaded that when such changes occurred after their contracts were drawn, their contract prices should be raised so as to cover the increase in their costs.

From the contractor's point of view the position was simple and clear. But the Government was confronted with a very difficult problem. To concede the contractors' demands in full would mean, in the case of wages, that the whole burden of increases awarded to meet the rising cost of living was shifted from the employer to the taxpayer. The Government would, in effect, be granting from the national funds an enormous subsidy, which, since it merely took the form of an increase in the prices of thousands of contracts, would nowhere figure in the Public Accounts or be submitted to the consideration of Parliament.

A further effect would be that, the employer having no longer any incentive to resist the upward movement of wages, the pressure from his side, which normally holds in check the pressure from Labour, would be removed. The tendency would be for wages to soar upwards and to carry prices with them.

It does not appear that these large questions were faced and thought out by the Cabinet. There was not even any single authority dealing with general awards of wages. The Treasury was alive to the dangers involved, and sought to establish and maintain the principle that contractors should be compensated only in cases of proved hardship, when, for instance, they could show that, on their Government work taken as a whole, the effect of Government action in regulating wages and the price of materials had reduced their prices so as not to contain a reasonable profit. The following pages will show how this position was abandoned in consequence of pledges given by two Ministers of Munitions.

II. Claims for Revision of War Office Contracts owing to War Conditions.

The earliest claims for revision of contracts in consideration of war conditions were, of course, preferred in respect of contracts that were running at the time of the outbreak of war.¹ In normal times a large proportion of the supplies and stores required for the Army were obtained under term contracts for periods varying from three months to three years. In such cases, the tender form stated the estimated requirements during the currency of the contract, with the addition of a proviso that, according to the actual wants of the service, the quantities demanded might be considerably more or less than the estimate. After the outbreak of war, the demands far exceeded any amounts contemplated when the contracts had been made in time of peace. Contractors had also to contend with a heavy and almost universal increase in the cost of labour and materials. The consequence was that, during the first year of the War, a very large number of claims for compensation were made. Contractors applied either for release from contract obligations or for an increase of price in respect of quantities supplied in excess of estimated requirements or even in respect of all quantities supplied since the outbreak of war.

Under the rule in force before the War, Treasury sanction was required for any increase in price paid under a contract, except when requirements had been altered or a clerical error in the tender had been brought to notice within a reasonable time.

On 17 August, 1914, the Army Council represented to the Treasury the difficulties that had arisen. They proposed that current market rates should be paid for all quantities in excess of those estimated in the contracts, and that, with regard to supplies, within the limits of those requirements, of which the price could be shown to have risen very largely in consequence of the emergency, any representations made by contractors should be equitably considered. In order to maintain the financial stability of contractors, it was considered necessary that reasonable prices should be paid without delay. The Army Council, therefore, urged the impossibility of consulting the

¹ See memorandum sent by Mr. Wintour, Director of Army Contracts, to Mr. Beveridge (12 July, 1915). M.W. 45866.

Treasury in advance in all cases ; requested that a standing authority should be given to deal with such cases on their merits during the crisis ; and assured the Treasury that increases would only be allowed where the Council was fully satisfied that a material loss had fallen on the contractor.

After some further correspondence, the Treasury wrote, on 17 December, 1914,¹ that they were prepared to grant general authority to the Army Council to deal with concessions to War Department contractors in respect of contracts made before the War, in cases where market prices were stated to have risen in consequence of war, and where the following conditions were satisfied :—

(a) the concession is in respect of supplies in excess of the estimated contract quantities only ;

(b) the figure for the current market price is acceptable as accurate by the Board of Trade or by the Boards of Agriculture of England, Scotland, and Ireland respectively, whichever Department may be concerned with the commodities supplied, as the wholesale price in the locality ;

(c) the actual financial effect of the concession is under £1,000.

Further, in any case where, upon an examination of accounts, the Council were satisfied that a net loss of substantial amount had been incurred in consequence of prices having risen owing to exceptional war conditions since the contract was signed, and that such loss could not have been avoided by reasonable precautions, the Treasury were prepared to sanction not more than half the loss being met from Army funds.

These concessions applied only to contracts made before the War. In February, 1915, a particular case of a contract for bread made after the outbreak of war was submitted to the Treasury. In a letter of 3 May, the Treasury eventually agreed that

“subject to investigation by the Board of Agriculture and Fisheries, or other Government Department concerned, of the prices claimed, the Council may settle claims of contractors in respect of excess supplies on running contracts, placed subsequent to the outbreak of war, by the payment, within the general limits laid down by Treasury letter 28251/14 of 17 December last, of current market wholesale prices, on the understanding that contractors will be required to supply up to 20 per cent. in excess without compensation. But in assessing compensation when supplies are over 20 per cent., my Lords think a deduction at least equal to 20 per cent. should be made in respect of excess supplies.”

These concessions were found insufficient to enable the War Office to deal promptly and satisfactorily with the claims submitted, and it was necessary to consider some further extension of powers.

¹ Letter No. 28251/14 (17/12/14).

In the case of contracts for specified quantities (as opposed to running contracts), most of the applications were based mainly on rise in the cost of labour, which, it was contended, was due, directly or indirectly, to Government action. Up to the end of June, 1915, the practice of the Army Contracts department was to refuse to admit any claims on this ground. Comparatively few applications were based on rises in the cost of materials, *e.g.*, wool and leather.¹

Early in 1915, some of the armament firms began to make proposals that the prices for shell contracts then being placed with them should be subject to reconsideration. Thus, on 23 February, Messrs. Cammell Laird wrote, with reference to a proposed contract² :—

“ With regard to the question of price, we desire to point out that the conditions of labour and material are now so unstable that it is impossible to forecast the position throughout the present year ; but we understand that consideration will be given to a request for an increase in the price now stated, provided that the conditions in this country justify that course being adopted.”

The Contracts branch consulted the Finance branch under Mr. Dannreuther in the Master-General of the Ordnance department. Mr. Hanson suggested that it would be better not to insert in the contract any clause relating to revision of prices. Mr. Dannreuther discussed the matter with Mr. Perry, Director of Financial Services at the War Office, on 9 March.³

With regard to materials, Mr. Perry held that any proposals that the War Office should vary prices during the continuance of a contract in accordance with fluctuations in the cost of ordinary materials should be resisted. The market price of ordinary materials at any given moment was difficult to ascertain, and there was no means of protecting the Government from loss if the contractor should buy materials at a time when prices were abnormally high. Moreover, when a firm was doing private as well as Government work, the materials could not be followed up through the various processes. There were, however, certain classes of materials, such as sulphur and acetone, of which both the market price and the available supply at any given time were easily ascertainable. In these cases, provided no other complication existed, there might be little risk, if it should be found necessary, in agreeing to vary the price according to fluctuations in cost.

With regard to labour, since a rise in the cost of labour in a particular district or trade might be in part attributable to Government action, it might be impossible to resist the insertion of a clause providing that the Government should assist the manufacturer in meeting the extra cost of any abnormal increases.

¹ Memorandum by Mr. F. Osborn to the Director of Army Contracts (1 July, 1915). Copy in M.W. 45866.

² Contracts/S/6980.

³ 94/Gen./8.

In general, on both points, the Treasury in ordinary circumstances considered that the only basis on which the Government could come to the aid of a manufacturer who, owing to some change in conditions, was faced with a loss on the prices fixed by contract, was that the Government should bear 50 per cent. of the contractor's losses over the whole contract. Suppose, for example, that during the first six months of a contract the contractor had made a normal profit, but during the last six months, owing to some change (for example, in the price of labour), had incurred a loss, the Treasury would insist on the profit made in the first six months being set off against the loss incurred in the second, before any question of Government subvention could be entertained.

In the present circumstances, action on these lines would not meet the contractors' case. It was open to the War Office, as in the case of Messrs. Cammell Laird, to inform the contractor in writing that the Secretary of State would take into consideration any request that the contractor might make for a revision of prices in the event of a contractor being able to prove that wages in the district where the works were situated had appreciably risen. But, unless general powers were obtained, each case must be taken to the Treasury. Should it be thought desirable to draft a clause providing for reconsideration of prices in the event of proved increase in wages in the district after a certain date, Treasury sanction should be obtained for the inclusion of such a clause if the contractor pressed for it and the War Office considered it desirable to insert it.

Mr. Perry thought it preferable to define the rise in wages with reference to the district where the works were situated rather than with reference to any agreement between employers and men in the particular trade, notwithstanding that in districts where only Government work was done the provision might operate to the disadvantage of the Government.

With respect to rises in the cost of materials, all that could be promised was consideration of any serious loss. This promise, which should be made only where it could not be avoided, would be subject to Treasury sanction as regards the actual assistance eventually given.

The Contracts department accordingly wrote on 9 April to Messrs. Cammell Laird as follows :—

“ I beg to state that, if by 31 October, 1915, there has been such a general advance or decline in the rate of wages paid in the district in which your works are situated, as materially affects the cost of production of these shells, the Secretary of State will consider any representations that may be made to him on the subject, with reference to the prices for shell fixed under this contract.

“ Further, if by the same date you are in a position to prove that the cost of materials necessary for the execution of this contract has advanced so much as to involve you in a risk of loss over the undertaking, it will be open to you to make representations to that effect to the Secretary of State.”

The firm, in acknowledging the receipt of this letter on 20 April, raised no objection.¹

In the early part of 1915, there were also requests for a definite increase of contract prices. By February of that year, the rise in the cost of living had begun to be seriously felt, and demands for an increase of wages to meet it were being conceded. One of the armament firms wrote in March to the Contracts department that the wages of their employees had been raised. They asked for an increase of (say) 12 per cent. on the prices ruling in current contracts, and offered, as an alternative, to submit an account showing the increased charges.² Other armament firms made similar requests. Just about this time, it had been announced that the Government intended to "take over" the armament firms. Sir Charles Harris directed that the firms should be informed that until more progress had been made in this matter, their request could not be dealt with.

In the course of April and May, 1915, however, many further letters were received from contractors requesting, on behalf of their sub-contractors or of themselves, an advance of contract prices to cover rises in wages recently granted. The Finance Member consulted Mr. Acland, of the Treasury, who wrote on 4 May that the only answer he could give was as follows :—

"If the contract which may be called into question in this matter is one concluded before the outbreak of war, you have already, I believe, power within certain limits of cost to deal with the question of compensation within the general concession under which the State is prepared to bear half a loss occasioned by the War in respect of such contracts; but as regards contracts concluded after the outbreak of war, we can sanction no concession on the ground of increased wages, unless the contractor can show that he has incurred a loss on his Government work as a whole. This is the line of policy which we have agreed upon with the Admiralty."³

On 20 May, Sir Charles Harris suggested that the following form of answer should be given to enquiries :—

"The Army Council is not prepared to undertake to increase its payments under contracts by the amount of the increase in the wages bill attributable to the advance of wages conceded to workmen. But it will be prepared in due course to take into consideration an application for some increase of payments under contracts in the event of its being shown that the contractor has made a loss on his Government work as a whole. Any extra payments which the firm may find it necessary to make to sub-contractors in connection with Government contracts on the one hand, and any receipts for sub-contract work done by the firm on the other, to be taken into account, provided the extra payments to sub-contractors are submitted for the prior sanction of the Army Council."

¹ Contracts/S/6980.

² Letter from Messrs. Hadfield, 13 March, 1915, 94/Gen./9.

³ 94/Gen./61.

The Master-General of the Ordnance objected to the terms of this letter in view of “(1) The Chancellor of the Exchequer’s statement to certain firms that the Government would indemnify them for all costs and give liberal profit; (2) the decision of Mr. Runciman to give about 12½ per cent. profit to State-controlled firms.” Sir Charles Harris replied (22 May) that negotiations were going forward with the Treasury to get a fair profit substituted for the condition of loss. In the present interregnum¹ it was impossible to get a decision. The Finance Member had decided that “it would be best to give such answer as we can and await appeals.” A letter was issued to the contractors who had raised the question, stating that the matter was under consideration, and they would be informed when a decision had been reached.

III. Appointment and Reports I. and II. of the Departmental Contracts Committee.

The case for a revision of contracts in view of the increased cost of labour and materials was reviewed by Sir George Gibb in a memorandum dated 13 May, 1915.²

Sir George Gibb pointed out that it was beyond dispute that the costs of labour and materials had risen to an abnormal extent. Further, it must probably be conceded: (1) that the upward movement of prices of material had been due to some extent to direct Government action which could not have been foreseen by contractors, and which, if it had been allowed for, would probably have increased contract prices to a greater extent than any revision now claimed would be likely to do; (2) that the rise in the cost of labour was partly due to shortage of labour caused by recruiting—a cause not fairly within the commercial conditions which contractors are expected to allow for; (3) that Government action with regard to wages had deprived contractors for Government work of the ordinary means of controlling undue increases of wage.

The claim based on rise in cost of material was not so strong as that based on rise in cost of labour. With respect to material, contractors normally had to take the risk of rises consequent on economic changes. There were, however, at least three causes now affecting the prices of material, which contractors might claim to be due to Government action: (1) The requisition of shipping for Government transport; (2) the enormous demand for war material, which had absorbed a large part of the productive capacity of the country and upset the conditions which normally regulate prices; (3) the shortage of labour and consequent restriction of output, due partly to the exceptional demand for war material, partly to recruiting.

¹ The Coalition Government announced on 26 May was at this time in course of construction.

² Copy in M.W. 45866. HIST. REC./R./500/27. As the War Office representative on the Committee on Production, Sir George Gibb had had exceptional opportunities of studying this question.

The increasing cost of labour was due partly to increased cost of living (itself attributable to the same causes that had raised the price of material), and partly to shortage of labour, which had enabled workmen to enforce increases of wages with exceptional ease. It was hard to separate the effects of these two principal conditions, since the former was the legitimate basis, the latter the lever, for enforcing claims for higher wages. The rapid success of such claims was fundamentally due to the urgent Government demand for war material, which had made it impossible to allow strikes to occur.

Contractors who had already claimed revision had contended that the Government, by obliging them to accept arbitration so as to avoid stoppage of work,¹ had thereby assumed an obligation to indemnify them against all awarded increases of wage. This contention could not be upheld. Arbitration protected the contractor against all unreasonable demands. The point, however, was not important, if the Government should agree to the principle of revision on other grounds. Considerations of equity and public opinion pointed to acceptance of the principle. There remained the question of terms.

No distinction could be drawn between contractors and sub-contractors; but the terms of settlement might be different. The price at which work was placed under sub-contract must be taken into consideration. Probably the best method would be to allow contractors to settle the claims of sub-contractors, subject to Government approval, and to let the payments made appear as items in the contractors' claims on the Government.

Any procedure must cover claims on the Admiralty as well as on the War Office. In the case of claims on the Admiralty, more detailed consideration would have to be given to cases where definite orders had been given to accelerate the work. Contractors would urge that they had incurred abnormal expenditure on overtime and under various other heads. When the Cabinet had laid down the principles, individual contracts could best be dealt with by a Committee representing the Admiralty, the War Office, and the Treasury, with some business experts. The Committee should have the services of accountants and an adequate staff, and be given a large discretion.

Every contractor who claimed revision should be made to bring into account all the contracts he held for Government at the outbreak of war or since. He should not be allowed to claim revision of one or more unprofitable contracts, without bringing into account others on which he might have made large profits. Subject to this condition, where prices of labour and material had risen, revision should be granted so as to provide payment for work done on the basis of approved actual cost, plus a reasonable profit. The profit should be calculated at about, but something less than, the rate which the contractor could reasonably expect to make under normal conditions of competition on a contract of the character in question. Mere reimbursement of loss

¹ The reference is to the Treasury Agreement of 19 March, 1915. See Volume I., Part II., p. 86.

would not be enough. Large profits were being made on contracts entered into since prices had risen. It would not be fair that no profit should be allowed on contracts made before war prices could be foreseen.

Sir George Gibb thought that an announcement should be made without delay. The advantages of letting the contractors know where they stood would, he considered, outweigh the dangers, more apparent than real, that contractors might become less watchful over their expenditure, and that workmen might put extreme pressure on employers to concede advances in wages on the ground that the cost would fall on the Government. As regards wages, the men were insisting on increases to meet the higher cost of living; but the responsible leaders were not showing a disposition to make a dangerous use of the power which the shortage of labour and the urgency of Government demands had put into their hands. "On the contrary, the general attitude of the more responsible workmen has quite frankly been that, if all practicable steps are taken to prevent excessive inflation of private profits, they, on their part, will not press for larger increases of wages than are necessary to meet some part of the increased cost of living."

The question naturally remained in suspense during the change of Government and the formation of the Ministry of Munitions. It was mooted again on 23 July, when the Treasury proposed the appointment of a Committee to hear appeals from contractors and to recommend to the Treasury the revised terms of contracts.¹

The Ministry concurred in this suggestion on 18 August, and called attention to certain points on which it would be desirable that the Departments should know the Committee's views in advance. One was the case in which an increase of wages was awarded by the Committee on Production to men working for a Government contractor. If this rendered the contract unprofitable, it was frequently necessary, in order to induce the contractor to continue, that some kind of provisional promise of revision should be given by the Department. It was doubtful if any Court would enforce a contract when the action of a Government Committee had made it unprofitable. The contractor might decline to proceed unless the Government bore the whole cost of the increase.

By a Minute dated 20 August, 1915, the Treasury appointed the Departmental Contracts Committee,

"to consider and report upon the principles upon which applications should be dealt with from contractors to the Admiralty, War Office, and Munitions Ministry, for enhanced prices in view of the increase attributable to the War in the cost to them of the execution of their contracts, and, such principles having been determined, to recommend to the Treasury what terms should be allowed in individual cases."

¹ Letter No. 17173/15 (23/7/15). M.W. 45866. HIST. REC./R/500/27.

The following were appointed members of the Committee :—

Mr. C. Lubbock..	..	..	Chairman.
Mr. G. L. Barstow, C.B.	..	..	Treasury.
Mr. V. W. Baddeley, C.B.	}	..	Admiralty.
Mr. C. A. Oliver			
Mr. N. F. B. Osborn	}	..	War Office.
Mr. B. M. Draper			
Mr. S. Dannreuther	..	..	Ministry of Munitions.
Mr. C. G. Spry	..	..	Secretary.

The Committee, on 7 September, presented a Report dealing with the first part of their reference, namely, the principles to be adopted in considering contractors' claims. They divided contracts into two classes : pre-war and post-war.

1. *Pre-war Contracts*.—It was probable that these contracts, made under normal conditions, provided for a reasonable rate of profit, but not for a price sufficient to cover the rise in cost due to the War. Where the cost of labour, materials, etc., had shown a marked rise, there was a *prima facie* case for revision.

Increased payment might be justified on four main grounds, viz., increased cost of (1) materials, (2) labour, (3) freight, (4) insurance. What proportion the payment should bear to the cost must be decided on the merits of each case. The payment might convert a loss into a profit ; in some cases the original contract might have yielded an undue profit ; in other instances the greatly increased quantity would justify a diminished rate of profit. Also, profitable and unprofitable contracts held by the same contractor must be taken into account together. The circumstances would vary so much that no general principles could be laid down.

Pre-war contracts could be classified as :—(a) Term contracts, to supply goods or services at a certain rate during a certain time, according as the contractor might receive orders ; and (b) Contracts to supply definite quantities or to complete a definite work by a specified date.

Some Term contracts specified the amounts likely to be required. Excess quantities, which since the War had often been very large, had been treated as outside the contract, and the rule had been that the Government should do no more than bear half the loss on the specified quantity. The distinction could hardly be maintained now. The Admiralty were advised by counsel that a contractor had the right to withdraw from his contract at any time in respect of orders not yet given. Some contractors had in fact ceased to supply shortly after the outbreak of war. Others had continued at the request of the Department, generally with an understanding that claims would be considered later.

The Committee recommended that no distinction should be made among the varieties of Term contracts, but that all should be treated on the general principles proposed. They considered that "any allowance to be made in the case of a Term contract should be in

respect of supplies furnished up to a definite date, and that from that date onwards the Department concerned should be free to terminate the contract, and to make fresh arrangements, either by agreement with the contractor, or by inviting fresh tenders, or in such other manner as may be thought best."

2. *Post-war Contracts* must be treated on a different basis. The rise in cost of wages, materials, etc., would no longer constitute a *prima facie* claim for revision. Competition had been less effective, and the contractors had probably guarded against uncertainties by a wider margin of profit. Claims might be justified by the great rise in freight, by scarcity of some particular material, or by rises in wages. But they would need careful scrutiny, and the actual amount of profit would require special attention.

3. *All Contracts* might involve claims arising from failures of sub-contractors, due to increased cost of labour, material, etc. In such cases, the contractor should be pressed to settle with his sub-contractor, with a promise that his claims in respect of such extra payments should be considered.

In exceptional cases, an additional payment might have to be agreed upon before the completion of the contract, in order to secure continuance of the work. It was hoped, however, that the consideration of most claims could be deferred till after completion.

It was undesirable that the appointment of a Committee to deal with claims should become known, since publicity might enormously increase the number of claims.

The above Report was approved by Treasury Minute of 12 October, and the Committee was instructed to proceed, through its sub-committees,¹ to consider claims and make recommendations to the Treasury.² A sub-committee was appointed to deal with claims made by contractors to the Ministry. On 13 October the Ministry informed the Treasury that at all meetings of this sub-committee the Department would be represented by Mr. Lever, on behalf of the Director of Munitions Finance, and by Mr. Williams (A.D.M.C.) and Mr. Burrage (D.A.D.M.C.) on behalf of the Director of Munitions Contracts. The Committee was at first occupied chiefly with pre-war running contracts. In October, 1915, a schedule of applications for increases in contract prices on account of increased cost of labour and materials was prepared by the Ministry.³ It gave particulars of the nature and value of the contract, and of the reasons given for requesting an increase. It included twenty-four contracts. All these cases, except those of Messrs. Vickers, Messrs. Nobel, and the Scientific Instrument makers,

¹ There was a sub-committee for each of the large purchasing Departments (Admiralty, War Office, and Ministry of Munitions). Mr. Lubbock was chairman of each sub-committee, the other members being a Treasury representative, and Finance and Contracts representatives of the Department concerned.

² A memorandum on some points to be considered in inviting and investigating evidence in support of contractors' claims was circulated to members of the Committee. HIST. REC./R./500/27.

³ Copy in 94/Gen./61.

were submitted to the Departmental Contracts Committee in January or February, 1916, and decisions were given.

The Second Report of the Departmental Contracts Committee, dated 31 December, 1915, set forth the principles on which, in their opinion, claims for additional payments under contracts, by reason of awards of increased wages by the Committee on Production, should be dealt with.

The Committee were informed that the Committee on Production had never held out any hope that the Government would reimburse the additional cost of wages, and they knew of no promise made by any Minister. They could not accept the employers' suggestion that, but for the Committee on Production, wages would not have risen. A rise was inevitable under war conditions, and might have been discounted by many contractors in submitting tenders. Nor would they admit that the actual rise was greater than could have been anticipated. They recommended that contractors should be informed that these claims could not be admitted.

If contractors should persist, they should be told that the Government would consider cases where it could be shown that, in executing Government work, a contractor had suffered a loss owing to war conditions; but the total result of all contracts held by the same contractor must be considered and probably the books would have to be examined. Firms making large profits might then be expected to withdraw their claims. Only those who could show a loss would be willing to disclose their affairs.

In the case of controlled firms, whose books would be examined by the Ministry, the Finance department had promised to assist the Committee. It was to be remembered that in many cases the net profits would equal or exceed the profits divisible under the Munitions of War Act, and any payment now made would be returnable to Government as excess profits.

One plea for concession to contractors deserved mention. A large amount of work was being done for the Admiralty on the cost plus percentage system. The cost of the increased wages fell on the Admiralty, and the contractor's percentage of profit was increased. The system was open to obvious objections, and it was desirable that contracts should be carried out at fixed prices. It had been represented that a contractor at fixed prices was at a disadvantage as compared with one working on a cost plus percentage basis, and that some concession should be made to the former, lest firms should become reluctant to work at fixed prices. The Committee, however, had concluded that there was no reason to apprehend on this account such prejudice to the public service as to necessitate any departure from the original contract conditions. They accordingly recommended that these applications should be refused.

The recommendations of this Report were accepted by the Government and acted upon by the Departments.

IV. Clauses providing for Fluctuation of Prices.

In the autumn of 1915 at least one Ministry contractor secured the insertion of a clause providing for the rise or fall of prices in accordance with possible fluctuations in the cost of material. An Agreement concluded with the Austin Motor Company on 1 October, 1915, for the delivery of 18-pdr. and 15-pdr. shell contains the following clause :—

“ 5. (b) Inasmuch as in the case of any shells to be delivered under this Agreement in excess of such a number as together with the shells delivered under the said Agreement of the 18th February, 1915, shall make up 250,000 the price has been fixed on the assumption that the Company will be able to obtain a supply of raw material delivered to Longbridge Works, Northfield, Birmingham, at the prices prevailing in February, 1915, it is agreed that the Company will endeavour to obtain such raw material as cheaply as possible but that if the prices which the Company may have to pay for the said raw material shall ultimately be found to be more or less than the prices prevailing in February, 1915, then the price to be paid by the Minister for each shell delivered in excess of such numbers as aforesaid shall be correspondingly increased or diminished.” ¹

On 3 February, 1916, at the last of a series of conferences with the armament firms, an agreement was reached for a substantial reduction of shell prices.² It was stated that the Ministry's prices were based on certain prices for steel, “ variations to affect prices correspondingly.” The question of alterations of wages was not raised, and no agreement was arrived at in this matter. After the conference, however, in consequence of representations made by Messrs. Vickers, the Ministry agreed that, in addition to the arrangement whereby the price of shell was to vary according to the price of materials, the shell prices should be similarly affected by alterations in the existing general rates of wages.³

The question of drafting clauses, for insertion in new contracts, to provide for prices fluctuating with changes in the cost of labour and materials was considered on the occasion of issuing tenders to Messrs. Armstrong for fresh contracts to run from 10 March to 30 June, 1916.⁴ It was anticipated that contractors would contend (with some reason) that the reduced prices now offered would not cover even small increases on materials. On the other hand, it was considered impossible to

¹ 94/S./481. Contracts/Firms A/2186. Messrs. Austin claimed the benefit of this clause in January, 1916, in respect of 14,794 shells delivered before 31 December, 1915, in excess of the first 250,000. They alleged increases of £2 13s. 6d. per ton (8d. per shell) in the cost of steel, and of 3½d. per lb. (3¼d. per shell) in the cost of copper. The estimate of the increase for copper proved to be excessive; but the Ministry offered an increase of 10·1d. per 18-pdr. and 7·22d. per 15-pdr. for shells in excess of 250,000 and up to a total of 500,000.

² See above, p. 47.

³ A statement to this effect was made in a letter dated 1 March, 1916, to Messrs. Armstrong, referring to proposed new contracts which were to run to 30 June, 1916. (94/S./1977.)

⁴ 94/S./1977.

provide that shell prices should fluctuate nervously and precisely in response to fluctuations in the cost of materials. In the case of contractors who purchased materials through the Ministry the problem was comparatively simple. The Ministry could undertake to supply materials at a fixed price, and itself meet rises or falls without changing the shell price. The only difficulty would be to prevent a contractor from re-selling materials to another firm when outside prices had risen. The great difficulty would arise over those contractors who bought materials privately. It was suggested that the simplest solution would be that all contractors should henceforth obtain their supplies of materials through the Ministry.

After further discussion in March and April, the following clauses were attached to tender forms issued to the armament firms in May for contracts to run to 30 September, 1916 :—

“ 11. The price to be payable for the shell to be delivered hereunder is based on the following prices for material required for their manufacture, viz. :—

Steel at £ ¹	per ton uncut.
at £ ¹	per ton cut into billets.

Such prices to include delivery at nearest railhead to contractor's works.

“ If, during continuance of this contract, the contractor shall produce evidence to the satisfaction of the Minister to show that the price of either of the above materials has increased or if the Minister shall be of opinion that either of such prices has decreased, the price to be paid to the contractor for the shell to be delivered hereunder shall be such sum as shall be agreed between the parties having regard to the difference in the prices of materials or, in default of agreement, as shall be settled by arbitration.

“ 12. If, during the continuance of this contract, the contractor and the Minister shall agree, or if it shall be decided by the Arbitrator upon a reference to arbitration as herein-after provided that by reason of any change in the general rate of wages of any class or classes of labour employed by the contractor it is reasonable that the price of the shell to be delivered hereunder should be increased or reduced, such increase or reduction shall be made and allowed as shall be agreed or decided in manner aforesaid.

“ 13. No claim by either party hereto to revise or alter the price of Shell under the last two preceding clauses or either of them shall be made or allowed until the expiration of not less than three calendar months from the 5th February, 1916, or from the last occasion subsequent to the 5th February, 1916, when a claim to revise or alter the said price was made under the last two preceding clauses or either of them by the same party whether such claim resulted in the revision or alteration of the said price or not.”

¹ Prices as stated in Dr. Addison's letter of 5 April, 1916. See above, p. 51.

14. (Provision for arbitration in case of dispute.)¹

In a letter to the armament firms dated 4 August, 1916,² announcing the prices to be paid for shell delivered from 1 October to 31 December, 1916, Dr. Addison withdrew the provision for variation of contract prices according to fluctuations in prices of material. He wrote :—

“ In view of the short periods which are covered by the prices and the fact that contracts are normally for five or six months ahead, it is proposed that in future the prices given shall not be subject to variations as regards material.

“ The Ministry will, however, be prepared to consider an increased price should any substantial variation take place in the wages paid to labour.”

Not many direct contracts contained a clause like that used in the contracts with the armament firms, except in the case of cost and percentage contracts. The standard form (M.C. 2) for this type of contract, which was agreed between the Assistant Financial Secretary, the Contracts branch, and the Treasury Solicitor, contained a clause (21) similar to clause (12) quoted above.³

It will be observed that these clauses referred generally to “ any change in the general rate of wages,” and did not specify changes due to any particular cause.

The following clause was inserted in many of the contracts placed by the Contracts branch P.M. 3 for various classes of articles, of which the most important was small arms ammunition.

“ (1) *Labour*.—If the rates of wages paid by the contractor for the manufacture of (Cartridges) are varied by the instructions of the Minister, the price per (1,000 Cartridges) shall be increased or reduced in accordance with the attached ‘ Rules for determining effect of wage fluctuations on price.’ ”⁴

V. The Minister's Pledge to Boards of Management, 1st November, 1916.

The first serious breach in the defences set up by the Treasury was opened when, at a meeting with representatives of the Boards of Management on 1 November, 1916, Mr. Montagu gave the following pledge :—

“ If labour is given an increase on the direct instructions of the Ministry of Munitions, we will be prepared to make good such increase.”⁵

¹ 94/S./1977. 94/Gen./549.

² 94/S./4198 (P.M.2).

³ 94/Gen./549.

⁴ P.M./Gen./963. A copy of these rules is given in Appendix VII.

⁵ 94/Gen./544.

The Contracts department were informed that the intention was that the increase was not to ante-date the meeting, and that the words "direct instructions" referred to instructions from the Committee on Production.¹

A letter from the Manchester Board of Management, requesting that contracts placed through Boards of Management should contain a clause carrying out the Minister's pledge, was read at a meeting of the Boards of Management Executive Committee on 17 November. The Committee considered that such a clause should be inserted, and the Chairman reported that the Assistant Financial Secretary had given his sanction.²

The Contracts department were requested to draft a clause on the lines of the clause in use in direct contracts, but limited to cases where wages were raised by a decision of the Committee on Production. When the department pointed out that the Committee on Production was only one of the tribunals mentioned in Schedule I of the Munitions of War Act, 1915, the Assistant Financial Secretary stated that the Minister had intended to refer to Schedule I of the Act, and the clause should accordingly allow for decisions by any of the tribunals therein mentioned. He added that the intention was "that the Minister shall allow an increase of the price of the store to be manufactured equivalent to the amount by which wages cost of such manufacture has been increased owing to the higher rate of wages paid."

After further interdepartmental discussion, it was decided that the pledge must cover, not only increases consequent upon the awards of tribunals, but the other cases specified in the following clause, which was communicated to Boards of Management on 27 January, 1917, for use in contracts running from 1 January to 30 June, 1917³ :—

"If at any time during the continuance of this contract any increase is made in the rates of wages of any class of labour employed by the contractor on this work and such increase is in accordance with :—

(a) An Arbitration under the Munitions of War Act, 1915, as amended by the Munitions of War (Amendment) Act, 1916 ;

"(b) An Order of the Minister made under Section 6 or Section 7 of the Munitions of War (Amendment) Act, 1916 ;

"(c) An Agreement which, in the case of Controlled Establishments, has been sanctioned by the Minister under Section 4 (2) of the Munitions of War Act, 1915, or in the case of Uncontrolled Establishments, has received the support and the assent of the Minister ;

"(d) The provisions of the Fair Wages Clause in cases where the district rate of Wages has been advanced subsequently to the making of this contract, the Minister shall allow an increase

¹ Contracts Branch Memo. No. 76 (6/11/16).

² 94/Gen./549.

³ Circ. D.A.O./C.13.

in the price of the store to be manufactured hereunder equal to the amount by which the contractor shall prove to the reasonable satisfaction of the Minister the wages cost of such manufacture to have been increased owing to the higher rate of wages so paid."

The following were the most important points in this clause.

- (1) It was confined to shell contracts placed by Boards of Management.
- (2) It referred only to rises in wages made during the continuance of the contract. Where the contract was entered into at any time *after* such a rise occurred, it was considered that the contractor had the remedy of declining to take the contract at the price fixed.
- (3) It threw upon the contractor the burden of proving an increase in the cost of manufacture. A defect of this arrangement was that it involved a separate negotiation in every case.
- (4) The increase of price promised was to be equal to the proved increase of cost. It might therefore vary in different cases, though the rise in wages might be general throughout the country.

The two defects mentioned under (3) and (4) were remedied in the instructions issued later for contracts running in the latter half of the year. The occasion for a modification of practice was provided by the award, issued by the Committee on Production on 1 March, 1917, of a general advance in wages to the Engineering and Foundry trades, to take effect from 1 April. The advance amounted to 5s. a week for men and 2s. 6d. for youths and boys. On 4 April the Labour department issued a Circular (L. 85) to controlled establishments referring to this award and announcing the Minister's decision to advance the rates of wages of women and girls as from 8 April, under certain orders which were enumerated.¹ Many controlled establishments thereupon applied for a revision of their contract prices.

At a meeting of the Finance Board on 3 April, Mr. Dannreuther reported that, in Sir George Askwith's opinion, the award of the 5s. rise was the beginning of a general cycle of rises which would ultimately spread to all trades. Probably there would be periodical rises to be considered in relation to the prices of munitions. The Board agreed that a scale should be worked out, showing the effect of the 5s. rise on munitions prices.

It was decided that the Wages Clause in Board of Management shell contracts should be modified so as to relieve the contractor from the obligation to prove in each case that his wages cost had been increased by a general rise. A clause was to be substituted giving the contractor the right to claim a fixed amount per shell in respect of such rises occurring between 31 March and 30 September.²

The Executive Committee of the Boards of Management held a special meeting on 8 May to consider what increase should be given

¹ M.W. 92329/39.

² Circ. D.A.O./C.15 (4/4/17).

on the price of shell to compensate for increases in wages.¹ The following figures were agreed upon :—

<i>Nature of Shell.</i>	<i>For the January rise.</i>	<i>For the combined rises of January and April.</i>
13-pdr. H.E. 	1d.	4½d.
18-pdr. H.E. and Smoke	1½d.	5d.
4·5 in. H.E. 	3d.	11d.
4·5 in. S.K. 	3½d.	1/1d.
60-pdr. H.E. 	4½d.	1/6d.
6 in. H.E. 	6d.	2/2d.

These extra prices were announced to Boards of Management in a circular dated 18 May.² It was explained that, if accepted, they were to be taken as a final settlement of all claims, except in the event of a further increase in wages affecting existing contracts being granted. If the contractors under any Board would not accept them unanimously, then the Ministry would require the actual extra cost to be proved by the production of each contractor's books.

Boards of Management were instructed in a circular³ dated 21 May to insert a new wages clause in continuation contracts for shell running from 1 July to 30 September, 1917. The clause provided that, in the cases enumerated in the earlier clause,

“ The contractor shall be entitled to claim a fixed amount per shell in respect of such increase. The additional amount to be paid to the contractor will be determined by the Minister on the basis of his estimate of the average increased cost occasioned by the rises in wages and shall be payable on all shell in respect of which the increased wages shall have been paid.”

The question whether the Minister's pledge applied to direct contractors, as well as to Board of Management contractors, was raised on the occasion of applications from two Lincoln firms—Messrs. Ruston Proctor, and Messrs. Clayton & Shuttleworth. Both firms wrote in November, 1916, that the Committee on Production had awarded a general increase of 2s. a week, and that the new order fixing for women a minimum rate of £1 a week for 48 hours meant an increase of 15 per cent. on women's wages. They argued that in making offers to undertake work at a fixed contract price it was impossible to provide for such contingencies.⁴

It was decided that the Minister's pledge did not apply to direct contracts, except in cases where the point had been definitely raised, and a promise given when the contract was made. Accordingly, unless the contract provided for this point, claims by direct contractors based on increase of wages, whether given with the Minister's consent

¹ P.M./Gen./1015.

² Circ. D.A.O./C.16. In a later circular (D.A.O./C.18, 24 May) it was announced that the increases in the prices of Shrapnel Shell were to be the same as for the corresponding sizes of H.E. Shell.

³ Circ. D.A.O./C.17.

⁴ 94/Gen./568.

or not, were to continue to be treated on their merits, and, if they appeared equitable, to be sent to the Finance department for submission to the Departmental Contracts Committee.¹

After the award by the Committee on Production of the general advance in wages from 1 April, 1917, instructions were issued to the Contracts branch² that if a direct contractor should apply on this ground for an increase of price in an existing contract, his application should be treated in the ordinary way, and (except in cases where a Wages Clause appeared in the contract) a letter should be sent to the following effect :—

“ The Ministry consider that a rise in wages is a normal commercial risk and is, therefore, expected to be covered by the terms of the contract.³ An alteration of your contract could only be made after reference to the special Treasury Committee dealing with losses incurred owing to special war conditions.

“ While the Ministry would be glad to pass any statement you may wish to put forward to that Committee, it is probable that a rise in price would only be allowed after a careful investigation of your cost of manufacture and after taking into consideration the favourable or unfavourable character of other contracts which you may hold.”

VI. Extension of the Wages Clause to other than Board of Management Shell Contracts.

As might have been anticipated, the first point to be attacked in the scheme laid down in the circular of 27 January to Boards of Management was the limitation of it to shell contracts.⁴ The private manufacturers of other articles for Government use naturally began to claim the benefit, and some of them sought to establish the principle that the whole extra cost of any rise in wages due to a Government award should be borne by the public funds.

The Secretary of the Manchester Board of Management wrote on 16 February, 1917, as follows :—

“ I am directed to point out to you that the whole question of controlling wages has been taken out of the hands of the various manufacturing firms and employers generally by the Government, and as this was the case the employing firms had no say in the rates of wages which they might be compelled by law to pay to their operatives. As the Ministry will have to pay increased prices for stores manufactured at National Projectile Factories, National Shell Factories, and in the case of work done on a cost basis, they should also pay private

¹ Contracts Branch Memo. 83 (17/1/17). 94/Halifax/49.

² Contracts Branch Memo. 92 (11/4/17).

³ Instructions were given later to substitute some less general and absolute statement, e.g., “ the terms of your contract are such as to cover the risk of a rise in wages.” Contracts Branch Memo. No. 92 was superseded by No. 111 on 5 July, 1917. See below, p. 90.

⁴ D.A.O./Misc./488.

contracting firms for any increased cost of production which is due to the Government's action in raising wages.

"As increases of wages are at the moment national and controlled entirely by the Government, my Board is strongly of opinion that the increased cost of production due to these increases of wages ought to be a national charge, and not a charge which private contractors should have to bear."

The Manchester Board was meanwhile holding up a large number of contracts for fuzes, primers, and other small components. They asked for authority to include the new Wages Clause in all contracts.

In considering this application, the department of Area Organisation pointed out that Mr. Montagu's pledge had been given in the first instance to a group of manufacturers who had been discouraged by particularly hard treatment with regard to shortage of material. Makers of components had not suffered nearly so much in this respect, nor had they been asked, as shell manufacturers were even now asked, to manufacture at a percentage of their possible output for a price based on costs which could only be attained at full output.

The question of extending the clause to all Board of Management contracts came before the Shell and Components Committee on 26 February. The Committee decided against any such extension, on the ground that, however equitable it might be, as a general principle, that the Government should reconsider prices when wages were raised by the action or permission of the Government, yet in fact, under the normal practice of placing short-period contracts, the contractor did not suffer sufficiently to justify the trouble and expense involved in ascertaining precisely the extent to which he had suffered.¹

It was not long, however, before the claim was revived, and it received the support of the Director of Area Organisation. At a meeting of the Board of Management Representation Committee on 15 March, Mr. Mensforth once more urged that the increased cost of wages should be added to the contract price.

Sir James Stevenson, who was in the chair, said :—

"I should like to state my personal opinion, and that is that the matter should be decided. My personal view is that your contention is right. I think that any contractor who has a contract with the Ministry should, if the wages are put up by the State, have the difference made up to him by the State. I say that the Ministry can protect itself, because of the fact that its contracts are only for short periods, and at the ends of those periods it can either alter prices or fix prices and offer them for acceptance ; but it cannot fix the labour charge, and if the labour charge is put up by one of the contracting parties against the other willy-nilly, I do not see how we have a leg to stand on. I give this as my own personal opinion on the matter."

Several Members : "Make a note of that. Get that down !"²

¹ P.M./Gen./734. D.A.O./Misc./488.

² D.A.O./Misc./488.

In a minute¹ to Mr. Mann and Sir James Stevenson, dated 24 March, Mr. Hanson expressed the opinion that Sir James Stevenson's declaration at the meeting on 15 March had prejudiced the position of the Department, and ran counter to the decision of the Shell and Components Committee. His own view was that, if prices must be adjusted to wages, either there must be a sliding scale, or each class of cases must be investigated every time wages were raised, to ascertain the actual effect on costs. Either method would be extremely cumbrous. He therefore preferred the method of keeping short-date contracts and letting the price be adjusted at the end of each period with general reference to the various conditions. This method was inexact, but it would work. If the Government intended to hold periodic general revisions of wages, contracts ought to be arranged so as to come to an end at some short period after each revision, and then re-adjusted to the new rate.

The Assistant Financial Secretary, in a memorandum² addressed to Sir James Stevenson on 2 April, pointed out that existing contracts could not be varied except with the consent of the Treasury, and then only in cases of proved hardship, such as those where the prices had been so closely adjusted as to leave no margin for the risk of war changes during the currency of the contract. There would be very grave practical difficulties in modifying the many hundreds of contracts for components. He accordingly suggested that any discussion should be confined to renewals of existing contracts; that a scale should be worked out by the Costing section showing the changes in price of components corresponding to changes in wages; that this scale should be embodied in future contracts and used as an argument for keen prices, since the risk of wage changes would be eliminated; that the increase should be made by one payment at the conclusion of the contract, if it had been executed to the satisfaction of the Minister; that the increase should be retrospective to an agreed date after the change of wages, fixed suitably to the normal course of manufacture; and that safeguards should be introduced to prevent contractors from withholding deliveries in order to obtain the benefit of the higher price.

The arguments advanced by Mr. Hanson and Mr. Mann were brought forward at the meeting of the Boards of Management Executive Committee on 3 April.³ In substance the arguments were two. (1) There was the difficulty of calculating for each contract the exact increase of cost due to rises in wages. The Committee considered that some rough-and-ready rule could be devised on the lines that 25 per cent. of the selling price of an article being referable to wages, the contractor could be compensated if the price were increased by a percentage equal to 25 per cent. of the percentage of increase in wages. (2) Treasury restrictions would not allow of the application of the scheme to existing contracts, except in cases of proved hardship and under special procedure. The Committee thought that the Minister ought to be able to put pressure on the Treasury.

¹ D.A.O./Misc./488.

³ D.A.O./Misc./488.

² P.M./Gen./734.

The Minister gave the following decision on 14 April :—

“ I think the contention is a perfectly fair one, and some equitable way of meeting it ought to be devised.”

In accordance with this decision, at a Conference with representatives of Boards of Management held on 17 April, the Minister pledged himself to the principle that a revision of prices to meet a rise in wages should extend to all existing and future contracts placed under the Area Organisation, not only for shells, but also for other goods. When Mr. Mensforth contended that the concession to shell contractors should be extended to contractors for components, the Minister expressed his entire agreement. He said :—

“ You must not tie me to the precise form of words, but I think the principle he (Mr. Mensforth) is going on is absolutely sound, and we must act on it. That is to say, that where you have made a contract with us to supply a given munition at a certain price, and we, therefore, come along and say, ‘ You must pay the people who are making this thing 2s. or 5s. a week, whatever it is, more than you paid them when you made the contract,’ and you have no option but to obey, then I think you are perfectly entitled to say to us : ‘ Very well, then, by your act you have made us pay so much to the people who are making this munition ; you must revise the price accordingly.’ ”

With reference to limiting the adjustment so as to cover only the wages of persons employed on the contract, the Minister said :—

“ I am not going to revise the price to cover the wages of people who are not employed on the contract. . . . We cannot revise it for all classes of persons, but where, by an act of ours, we require you to pay additional wages on an existing contract so that the goods cost you more to produce in consequence of that act of ours, I think that your claim is perfectly fair and that we ought to meet it just the same, whether it is a fuze or whether it is a shell, provided it applies to the people who are making the fuze or the shell.”¹

The Assistant Financial Secretary, after this meeting, applied to the Minister for instructions, as the Minister’s words were wide enough to include existing contracts. Under Treasury instructions these could only be varied in cases of proved hardship determined by the Departmental Contracts Committee. Mr. Mann accordingly asked the Minister to confirm “ that an equivalent advance in price shall be given to contractors who are compelled to pay increased wages, irrespective of the date of their contract or the existence of any hardship.”

Dr. Addison’s minute (20 April) was as follows :—

“ Yes, when the increased rate of wages is the result either of our order or arising out of an award of the Committee on Production. It would not, of course, take into account employees who might be affected, but who are not employed on munitions work.”²

¹ P.M./Gen./734.

² D.A O./Misc./488.

The situation created by this new pledge was discussed at the Ministry Finance Board on 17 April. Treasury sanction would, of course, be required. The Board agreed that for future contracts a scale should be laid down, as far as possible, at the time of making the contract, and any additional payment should be made in a lump sum at the termination of the contract. With regard to materials, it was agreed that, if the Government controlled prices, rises in prices should be reflected in contract prices. The Board also approved in principle a draft letter to contractors notifying the Minister's view that no profit should be allowed for increase in wages on cost and percentage contracts.

On 20 April, a letter was addressed to the Treasury, requesting sanction for the new policy.¹ Reference was made to the numerous applications for revision of contract prices which had followed upon the Committee on Production's award. Apart from a few contracts which contained a Wages Clause providing for the circumstances that had arisen, there were broadly two classes of contracts affected, since they contained no such provision:—(1) contracts with Boards of Management and their contractors for (a) shells, (b) components; (2) contracts with ordinary contractors.

As regards (1), since Mr. Montagu's pledge of 1 November, 1916, the necessary clause had been inserted in shell contracts. On 17 April Dr. Addison had extended the pledge to all existing and future contracts placed under the Area Organisation.

Applications under (2) would normally be referred to the Departmental Contracts Committee. This, however, would entail a large number of submissions, and the Treasury were asked to agree that "individual cases should be dealt with by the Minister in his discretion on lines of general policy to be laid down by them or by the Committee."

It was suggested that the general policy to be followed should embrace the following considerations:—

"(a) A scale of changes in price equivalent to changes in wages should be prepared and adjustments made at the termination of each contract according to this scale, regard being had—

"(b) to the satisfactory completion of contracts;

"(c) to the possibility of the original price being sufficiently high to include some provision for rise in wages;

"(d) that no increase should normally be given in respect of overdue deliveries."

The Treasury were accordingly requested "to give covering authority for increase of prices in contracts affected by the Minister's undertaking to Boards of Management, and also to agree to applications made by contractors not working under these Boards being dealt with in the manner suggested above."

¹ D.A.O./Misc./488. (Copy in P.M./Gen./734).

The Ministry's letter was referred by the Treasury to the Departmental Contracts Committee, with an instruction to assume that the pledge given by the Minister of Munitions could in substance be carried out.

The Committee reported on 18 May.¹ They observed that the recommendations of their Second Report² had been acted upon by the Departments, but the recent award to the engineering trades and the probability of further rises had brought about a new situation. The Minister's pledge, moreover, involved a complete reversal of the policy hitherto followed by the Government.

The Committee recommended that the pledge should be regarded as limited to existing contracts for gun ammunition components made by or through Boards of Management; but they recognised that it would be very difficult to convince direct contractors that they could justly be excluded from its scope, especially as many Board of Management contractors also held direct contracts with some Department. On the other hand, the extension of the pledge to all contracts would lead to heavy expenditure and to the revision of hundreds, and even thousands, of contracts, and would in many cases compensate a contractor for a risk already provided for in the contract price.

Board of Management Contracts.—The Committee advised that, from data in the hands of the Ministry showing costs of production and from the proportion which productive wages bore to the total price, a scale, to be agreed upon with the Committee of Area Contractors, should be drawn up, showing for each type of store the equivalent addition to the contract price necessary to cover the rise of wages.

Where these contractors had been compelled, as a consequence of the award of the Committee on Production, to raise the wages of workers other than those forming the subject of the award, it would be impossible to resist claims for a corresponding extension of the adjustment. The Minister's language on this point had not been quite explicit, but the Committee thought that the Ministry should be authorised to construe the pledge as covering such consequential increases.

The Minister had not referred to sub-contractors, but it was recommended that the Ministry should be free to deal similarly with claims from main contractors to be indemnified against demands for the cost of increased wages paid by their sub-contractors under the award.

Direct Contractors.—Some hundreds of claims had already been received from direct contractors and their representative Associations, in some cases accompanied by an intimation that in the meantime they had delayed paying the increased wages, and that production might in consequence be interrupted. The question was therefore urgent.

¹ Copy in P.M./Gen./734.

² See above, p. 75.

It was probable that some payment would have to be made in a very large number of cases. The Committee suggested that no claims should be considered without reference to all circumstances of the contract, and that the general lines of policy laid down in their Second Report should so far as possible be maintained in spite of the Minister's pledge. In view of the general tendency towards the determination of wages by tribunals acting under Government authority, it was important to avoid admitting that the fact that such awards were made under Government authority gave the contractors an unqualified right to be reimbursed the whole or any proportion of the consequent additional cost of wages. In the last two years many similar claims had been made and then abandoned.

The replies of Departments to claims should in the first instance follow the existing policy and state that an increase of wages awarded by the Committee on Production could not be regarded as of itself affording grounds for increased payment. It might now be added that, where the contractor could prove that the effect of the award was to deprive him of such reasonable profit as, in the opinion of the Department, he should have earned, his claim would be considered on the termination of the contract, provided that—

(a) The contract had been executed to the satisfaction of the Department ;

(b) where delay had occurred in the performance of the contract arising from causes within the control of the contractor, no allowance should be made for increased wages in so far as, in the opinion of the Department, they had been incurred during the period of the delay ;

(c) the maximum allowance in respect of any contract for increased wages should not exceed the actual amount of the increase in cost under that contract and sub-contracts (if any), due to the rise of wages under the award ;

(d) any claim made might be subject to independent investigation of the accounts and figures upon which it was based, by accountants detailed for the purpose by the Department.

The stipulation as to a reasonable profit might in some cases have to be widened to include the whole of the claimant's contracts with the Government since the outbreak of war.

In cases of obvious hardship, where *e.g.*, a moderate profit was being turned into a loss, or a financially weak contractor could not wait for a settlement, or where there was reason to think a contractor might have to suspend production, it was recommended that Departments should have immediate authority to give an undertaking that additional payment should be made, sufficient to allow a reasonable profit, but subject to the above conditions.

It would be impossible for the Committee to deal with the very large number of claims likely to be made. They therefore suggested that Departments should be authorised to investigate and settle, on

the lines here laid down, all claims arising from awards made on or after 1 April, 1917, by the Committee on Production or by similar tribunals acting under Government authority.

Future Contracts.—In future contracts the difficulty could be met by including a clause such as had been used in the Ministry shell contracts, providing for variation of wages being met by variations of price. Representatives of the Ministry had expressed the view that this method would operate on the whole in favour of the spending Departments, and was preferable to leaving the contractors to meet what they considered a quite abnormal risk by more or less extravagant additions to the price. Under such a clause the adjustment would be confined to an actual refund of the extra expenditure on wages without any question of profits arising, and would not call for the Committee's intervention.

The Treasury, in a letter¹ to the Ministry enclosing a copy of this Report, desired "to represent to the Minister the extreme inconvenience which arises when a very important question of principle which affects numerous public Departments is determined and publicly announced by one Department alone without consultation with other Departments affected." The Treasury concurred in the recommendations made in the Committee's Report, and authorised action accordingly, including the investigation and settlement of claims on the lines laid down in the Report.

It was decided by the Ministry that contractors should, if possible, be dissuaded from making claims. Those who persisted were to be handed forms of application. The Assistant Financial Secretary appointed a special staff, including Mr. Grimshaw, C.A., and Mr. Paine, of Messrs. Paines, Blythe & Huxtable, to deal with the large number of claims which had already been intimated. The claims were to be settled on conclusion of the contract, after verification if required. Small contractors who could not wait for the conclusion of their contracts were to be dealt with specially.

The form for contractors' claims² issued by the Finance department, contained the following announcement of the Treasury decision :

"The attention of contractors to the Ministry of Munitions is called to the following decision in regard to awards of increase in wages by the Committee on Production and the effect of such increase on Government contracts.

"(1) No increase of wages under any award can be regarded as affording of itself, irrespective of any other considerations, grounds for an increased payment, but if it be proved to the satisfaction of the Minister that the effect of such an award on a contract as a whole is such as to give rise to special hardship, an application for relief will be considered.

¹ No. 16522/17, 9 June, 1917.

² M.F.5D. Forms 1 and 2.

" (2) No application will be considered unless the contractor can show (*inter alia*) :—

" (a) That the contract has been executed to the satisfaction of the Minister ;

" (b) That where delay has occurred in the performance of the contract, arising from causes within the control of the contractor, no part of the claim relates to increased wages incurred during the period of the delay ;

" (c) That as an immediate effect of the award the contractor has been deprived of such reasonable profit on the contract concerned as otherwise he should, in the opinion of the Minister, have secured.

" (3) Regard may be had, in dealing with claims, to the results of a claimant's contracts with the Government taken as a whole.

" (4) Any claim made may be subject to independent investigation of the accounts and figures upon which it is based, by accountants detailed for the purpose by the Ministry."

The subject of Dr. Addison's pledge came up at the Minister's Fortnightly Meeting on 19 June.¹ Dr. Addison said :—

" We must be perfectly reasonable and be willing to make allowance in a reasonable manner where the increase of wages is due to our own edict. I am sure that is sound and only fair. However, Mr. Paine and Mr. Grimshaw are to deal with all these cases, so that they should be referred to them."

Mr. Mann :—" The idea is that cases of proved hardship will be dealt with with every consideration."

The Minister :—" I go further than that. I have said so and I stick to it."

Mr. Mann :—" I am speaking of those to whom the pledge was *not* given."

The Minister :—" That pledge is to apply all round. I go further : I told the Treasury I was going further ; and they climbed down from the word 'hardship.' I would not have the word 'hardship,' because who is going to prove hardship? What is hardship? . . . I think we must judge cases on their merits."

Accordingly, the reference to hardship was omitted in revised forms of application, which superseded the earlier forms on 5 July.² In the first paragraph above quoted the following words were struck out :—

" But if it be proved to the satisfaction of the Minister that the effect of such an award on a contract as a whole is such as to give rise to special hardship, an application for relief will be considered."

¹ Verbatim Report, p. 7.

² Forms P.M. 41 and 42. Contracts Branch Memo. 111.

The revised forms were issued by the Contracts (instead of the Finance) department. Applications were passed by Contracts branches to Mr. Grimshaw's section (M.F. 6 D.), the Contracts officer being at liberty to call attention to special circumstances which should influence the decision on the claim. At the same time instructions were given that sub-contractors who applied direct to the Ministry were to be told to forward their claim to the main contractor.

The extension of the principle to contracts for shell components was announced to Boards of Management on 13 July. The Boards were instructed to include in future contracts for such stores a Wages Clause similar to that already in use for shell contracts.¹

A similar clause was included in all direct contracts for shell from 1 July, 1917.²

VII. Cost Variation Clauses, M.C. 17, 18, and 19.

On 12 March, 1917, Mr. Hichens had written to the Minister requesting that a deputation of the Central Council of Associations of Controlled Firms might be received, in order to discuss (among other points) "the allowance, as an extra on contract prices, of increases in wages or the cost of materials due to Government instructions." In a later letter addressed to the War Office, Mr. Hichens explained the view of the Central Council as follows :—

"It appears to us that, in view of the present uncertainties and unavoidable fluctuations, the basis for tendering for Government contracts might fairly be the rates of wages and prices of material ruling at the time any contract is made, and that, if any increases in either wages or materials are given under Government instructions, an equivalent addition should be made to contract prices in respect of incompleted portions of such contracts."³

The Association of Chambers of Commerce also forwarded on 26 April the following resolution, which had been unanimously adopted at their recent annual meeting :—

"This Association is of the opinion that, in the case of a Government contract where wages are raised by direction of a Government Department, an appropriate increase in the contract price should automatically follow, when not otherwise provided for in the contract. The same principle should apply to tenders which are under consideration at the time that an advance in wages takes place."

The deputation of the Controlled Establishments Association was received by Dr. Addison on 10 July, 1917, representatives of the Admiralty and War Office being present.³ Mr. Livesay (Admiralty)

¹ D.A.O./C19. The amounts of the increases in price for such stores were given in this circular and in D.A.O./C22 (7 August, 1917).

² P.M./Gen./734.

³ M.F./Gen./668.

said that he had endeavoured to get the Treasury to agree to allow the net increase, and that he had allowed it wherever he could. He thought that the Treasury would never allow, what Mr. Hichens also demanded, that the increases should rank for the purpose of calculating establishment charges as well as the total price, since most increases in wages involved a relative increase in the wages of the clerical staff, of foremen, and of unskilled labour. Mr. Hichens admitted that contractors made allowances for contingencies ; but he said that this was a contingency which could not be reasonably calculated.

The Minister promised that a specimen clause should be drawn up. Mr. Hichens claimed that the provisions should include rises (and reductions) in the price of materials, where these were due to Government action. The Minister promised that the Department would consider this question also.

A reply to the Associated Chambers of Commerce was sent on 16 July in the following terms :—

“ The Minister is unable to acquiesce in a resolution expressed in such general terms, but he is prepared to take into consideration cases which may be brought to his notice where the contractor is able to prove that, owing to the action of a Government Department in raising wages, his position in regard to contracts existing at the time of such an award and containing no provision for variation of price, has been affected to such a degree as to deprive him of such reasonable profit as otherwise he should in the opinion of the Department have secured. In considering such cases the Minister would take into consideration the satisfactory carrying out or otherwise of the contract concerned.

“ A contractor is presumed to include in his price a sufficient margin to provide for fluctuations in wages. The Minister is, however, prepared in making new contracts to take into consideration the insertion of a provision by which he relieves the contractor of the risk of such fluctuation ; but in such cases the contractor must be prepared to accept a price modified in respect of the elimination of this risk.”

In July, 1917, the question of Cost Variation Clauses was taken up by the Joint Committee of Contracts and Finance Officers of the Admiralty, War Office, and Ministry of Munitions. The object was to arrive at a common policy for all the Departments, based on the recommendation of the Departmental Contracts Committee's Third Report.¹ The deliberations and the negotiations with the Central Council of Associations of Controlled Firms occupied several months. The outcome, in December, 1917, was the Cost Variation Clauses contained in Forms M.C. 17, 18, and 19.

At the first meeting (on 6 July, 1917) of the Joint Committee it was stated that the Ministry, in pursuance of the recent Treasury

decision, intended to include in future contracts a clause already in operation providing for the contract price varying with fluctuations of wages. The War Office and Admiralty had similar clauses under consideration. The Committee considered the form drawn up by the Ministry for contractors' claims in respect of contracts existing at the time of an award by the Committee on Production or other tribunal acting under Government instructions. It was explained that the form had been designed so as to present some obstacles to frivolous applications; but it actually contained no more information than was necessary for a proper consideration of claims. That the risk of a rise in the price of materials should be borne by contractors was generally agreed. It was thought that a sliding scale for materials might be included in contracts; but objections were felt even to the sliding scale in contracts for a short period, and great objections to any general clause providing for variation of price, except in special contracts for a long period, when a clause providing for prices to vary with cost of material might be inserted.

At the meeting on 13 July, it was generally agreed that the Departments should not recognise, for the purpose of varying contract prices, variations in rates of wages agreed between contractors and their employees without Government intervention.

The Admiralty had received many tenders qualified by a stipulation for extra prices in the event of a rise in wages and materials. They had refused to admit this proviso, except after examination of the result of the whole contract, and, speaking generally, no claims had been made. The Committee agreed that, if possible, scales of increases should be agreed and included in the contract.

On 20 July, draft clauses proposed by the War Office and the Ministry were discussed by the Joint Committee. The reply given to the Central Council of the Association of Controlled Firms was held to imply that all three Departments should insert similar clauses in regard to variation of wages. The conclusion was reached that there should be two types of clause agreed between the War Office and the Ministry for general use: (1) a general clause on the lines of the War Office draft, contemplating cost investigations, and (2) a clause contemplating a scale of variation in price laid down by the Departments concerned, to be used generally for repetitive work only.

The Committee also approved the following paragraph, which the Labour department wished to add to a letter notifying the award of the Committee on Production of an increase of 3s. a week to the Engineering trades as from 1 August:—

"I am to add that, if a contractor is of opinion that a claim arises for revision of prices payable in respect of direct contracts with Government Departments on the ground of increased labour costs due to this advance, such claim should be submitted to the Department from which the contract is held."

With regard to materials, the Committee agreed that no general clause should be introduced ; but, if contractors pressed for protection against rises in cost of materials, a clause should be inserted providing for variation of contract price according to an agreed scale. Where no materials clause appeared in the contract, it would be held as a general rule that contractors had provided for the contingency in quoting a price, and no claims would be considered, except in cases of hardship, which would be referred, if necessary, to the Departmental Contracts Committee.

On 27 July, it was pointed out in discussion at the Joint Committee that the clause need not provide for satisfactory completion of the contract, since this was sufficiently met by other penalties provided for in the contract. Additional payments of wages by sub-contractors or due to consequential rises (such as increased rates for foremen) should be excluded from any payment under the Wages Clause ; but the clause should be submitted to the Secretaries of the Controlled Firms Association, and it might then be necessary to concede increases of wages paid by sub-contractors.

A joint deputation consisting of members of the Executives of the Federation of British Industries, the British Manufacturers' Association, and the Central Council of Associations of Controlled Firms was received by the Minister on 8 August. Among the questions discussed was the following proposition :—

“ That all increases in the cost of labour and material made by the authority of the Government should be allowed as an extra to contract prices.”

Mr. Hobson instanced a large contract he held for spoons for the Army Canteen department. During the currency of the contract the Government had raised the price of cupro-nickel scrap, which he had been buying at £85 a ton, to £130 a ton, and had taken control of the whole of the scrap from every maker of cartridges. As a full discussion of all the questions raised was impossible, a further meeting with the Minister was arranged to take place on 6 September.¹

On 10 August, the Assistant Financial Secretary forwarded to the Central Council of Associations of Controlled Firms drafts of two clauses which had been agreed on in principle between the Admiralty, the War Office, and the Ministry of Munitions.² The draft had not been finally approved, and the observations of the Council were invited.

WAGES CLAUSE CONTEMPLATING INVESTIGATION OF COSTS.

This clause provided that, where the rate of wages had been raised by an order or award,

“ the contractor shall be entitled at the expiration of the contract to claim an additional sum equal to the actual cost incurred by him in respect of this contract by reason of the payment of such increased rate, provided that—

¹ D.A.O./Misc./488.

² D.A.O./Misc./488. 94/Gen./549.

“(a) No such sum shall be paid in so far as the extra cost has been incurred in respect of any goods or articles after the date fixed by the contract for the delivery of such goods or articles, unless the contractor shall prove to the satisfaction of the Minister that the delay was due to causes not within the contractor's control ;

“(b) The contractor's claim shall be supported by a certificate from a chartered or incorporated accountant or by any other accountant approved in any particular case by the Minister, and the accounts and figures upon which it is based shall at the option of the Department be subject to independent investigation on the Department's behalf ;

“(c) The decision of the Minister as to the additional sum to be allowed shall be final.

“Should a decrease of the rate of wages under similar authority occur during the continuation of this contract, a corresponding reduction in the contract price shall be made.”

WAGES CLAUSE CONTEMPLATING A SCALE OF VARIATION LAID DOWN BY THE DEPARTMENT.

This clause provided that, in the same event :—

“The contractor shall be entitled to a fixed additional amount for each (article) equal to the Minister's estimate of the average amount by which the cost of production has been increased by such rise of wages and such additional amount shall be payable on all (articles) delivered and accepted under this contract in respect of which the increased wages shall have been paid. Provided that no such amount shall be paid in so far as the extra cost shall have been incurred in respect of any (article) after the date fixed by the contract for the delivery of such (article) unless the contractor shall prove to the satisfaction of the Minister that the delay was due to causes not within the control of the contractor.”

The Central Council, at a meeting on 20 August, agreed that two alternative clauses should be prepared. In a letter of 21 August, the Council suggested the following amendments to the proposed clauses :—

- (1) That general increases in rates of wages sanctioned by the Minister should be included.
- (2) That the actual extra cost incurred should include establishment charges on the increased wages.
- (3) That the relief should extend to sub-contracts.
- (4) That Government increases in the price of materials should be included.
- (5) That provision should be made for payments on account where a considerable sum was involved.
- (6) That the clauses in question should be retrospective and run from 1 January, 1917.

(7) That the alternative clause to be adopted should be fixed by mutual arrangement between the Ministry and the contractor.¹

At an interview on 20 August, Mr. Biggart, Joint Secretary of the Association of Controlled Firms, expressed the view that, though specific rises given by contractors to small groups of employees should not be recognised, advances given generally should be recognised by the Ministry, if they had been submitted to and approved by the Ministry, even though submission had not been made to the Committee on Production. It was agreed to consider the inclusion of a provision that increase of contract price should be given in respect of general rises specially sanctioned by the Minister as a consequence of a general award. In reply to a question how far back it was proposed to go in considering increased cost, Mr. Biggart was told that the Department was prepared to consider the 1st of April rise and subsequent rises in relation to contracts existing at the time of the rise and containing no wages clause.

The Joint Committee of Contracts and Finance Officers agreed on 4 September that, as regards consequential rises and the effect of wages rises on establishment charges, no increase on any general basis should be admitted, but that the Departments should fairly interpret the term "labour" and would take into consideration the basis on which establishment charges were calculated in each case. Variation in contract price should be given only in respect of wages rises paid on Government authority. The extension to sub-contractors of the clause conceded by the Ministry to main contractors must be admitted ; but the main contractor must only give in sub-contracts clauses parallel to the clauses given by the Ministry. A clause should be conceded in regard to materials, but only such materials as were controlled by Government.

Clause 6 of the Controlled Firms' letter of 21 August, above quoted, urged that claims should be retrospective from 1 January, 1917. The Joint Committee agreed that a Wages Clause could not be read into old contracts. The Departmental Contracts Committee's concession that cases of hardship would be treated on their merits extended only to contracts existing on 1 April, 1917, and no further concession was necessary.

At the second conference with the Minister on 6 September, the Controlled Firms contended that increases in wages sanctioned by the Ministry, and not only increases awarded by the Committee on Production, should be allowed ; that they should be allowed the recognised percentage of that increase for establishment charges ; that any relief granted to main contractors should be extended to sub-contractors, if the sub-contract contained a parallel clause ; that any similar reductions in wages should be allowed as a rebate to the Ministry ; that any concessions should be retrospective to 1 April, 1917 ; and that payment on account of admitted increases should be made during the currency of the contract.

¹ D.A.O./Misc./488.

Mr. Mann reported on 14 September to the Joint Committee that the Ministry proposed to deal with the above contentions on the following lines :—

“ (1) Increases in direct wages authorised by the Ministry will be allowed.

“ (2) Increases in indirect wages and salaries authorised by the Ministry will be allowed, but the usual percentage of establishment charges or profit is not to be added to the increase in direct wages.

“ (3) The same relief to be extended to sub-contractors whose contract contains a parallel clause.

“ (4) The relief to be retrospective to 1 September, 1917.

“ (5) Allowance will be made to Controlled Firms in the event of increase of price of materials controlled by the Government.”

The meeting agreed to the principles in (3) and (5), and resolved that it was desirable to allow approved increases of wages indirectly arising out of awards of the Committee on Production. Further draft clauses were prepared.

The Finance department of the War Office objected to “ direct Government action ” covering an approval by a Government Department of a variation in wages. To meet this objection, the Joint Committee agreed on 31 October to substitute :—

“ In the case of a controlled firm an approval of a variation in rates of wages under the Munitions of War Act, 1915, Section 4 (2).”

It was decided not to extend the term “ wages ” to cover salaries in general, but to concede that a claim in respect of increases in the pay of foremen and draughtsmen should not be excluded merely on the ground that such pay was brought into account in the cost accounts of the contractor otherwise than as part of the direct cost of labour. The Departments could not admit that a percentage of establishment charges should be given to cover all increases of indirect wages, salaries, or material, nor discuss establishment charges as such.

Mr. Hichens then attended the meeting, and admitted that most of his points had been met. Mr. Mann said that it was not proposed to discuss the question further, and Mr. Hichens agreed to circularise the Controlled Firms. On 2 November, Mr. Mann reported to the Munitions Contracts Board that the new clauses had now been agreed with the Controlled Establishments Association.

The Labour department raised an objection that the clauses would make it harder for them to resist applications from employers to be allowed to increase wages. The abolition of leaving certificates had caused employers to press their applications in order to keep their workpeople. This question was referred to the Munitions Council. The objections of the Labour department were removed by omitting provisions for increases in wages sanctioned by that department.¹

¹ Munitions Contracts Board, Minutes of 9, 16 and 30 November, 1917.

The outcome of all these discussions was that three Cost Variation Clauses were settled, which came into use from 17 December, 1917. M.C. 19 deals with wages only, M.C. 18 with wages and materials, M.C. 17 with wages, materials, and sub-contracts.¹

(a) *Wages*.—The provisions with regard to wages were in effect as follows:—

(1) The contractor declared that the price was fixed strictly upon the basis of present wages, with no allowance for the contingency of a rise.

(2) Claims for repayment of any increased cost of production due to increased cost of labour might be made, if the increase was due to "direct Government action," defined as any wages award on a reference for settlement under the Munitions of War Acts, 1915-1917, or any order or award made by the Minister or a tribunal acting under Government Authority. The contractor was to notify the Department of the estimated amount of his claim immediately after the announcement of the increase, and to keep his records so as to show clearly the amount of extra cost due to the rise. No claim was to exceed "the strictly net amount chargeable to the contract on account of the increased cost of labour properly employed in the execution of the contract." No additions were to be made for establishment charges or profit.²

On receipt of a claim, the Minister might either (a) agree with the contractor the amount to be paid without awaiting completion of the contract, or (b) failing agreement, postpone determination of the claim until completion. No claim was to rank as due for payment until completion.

(3) If the cost of labour should be decreased by Government action, the Minister might withhold an amount equivalent to the consequent saving in cost of production.

(b) *Materials*.—The provisions for rises in cost of materials were similar, except that "direct Government action" in this case was defined as "any order made or direction given by the Minister or by any other Government Department fixing the price of such materials, or varying the maximum price of such materials previously fixed by the Government."

(c) *Sub-contracts*.—M.C. 17 contained an additional clause admitting claims in respect of sub-contracted work, only when the sub-contract contained all the other provisions in these Clauses, and the sub-contract had been let with the approval (where required) of the Department.

The introduction of these Clauses did not affect those existing contracts, made before 17 December, 1917, which already contained one or other of the wages or materials clauses previously in use. In the case of contracts (other than running contracts) made before

¹ Contracts Department Memo. No. 10 (12/12/17). The text of M.C. 17 is given in Appendix VIII.

² The Form for Contractors' claims based on M.C. 17-19 was M.C. 65.

1 September, 1917, and containing no special wages or materials clause, claims from contractors continued to be treated as cases of hardship and referred to the Departmental Contracts Committee. Contracts made between 1 September, and 17 December, 1917, and running contracts made before 18 December, which contained no wages or materials clause, were the subject of a special arrangement announced in a circular letter.¹ Contractors were informed that the Ministry would consider the application of the new clauses to such contracts, if they were of not less than three months' duration.

In regard to new contracts, the Contracts department were instructed that it was not intended that the new clauses should be inserted automatically, but that the question of inserting them should generally be left to be raised by the contractor.²

On 14 December the Controller of Munitions Contracts was able to announce to the Munitions Contracts Board that the Admiralty and the War Office had agreed to adopt substantially the same procedure as the Ministry with regard to these Clauses.

In order to limit so far as possible the numbers of claims, the Contracts department were instructed,³ with the help of the Contracts Cost branch, to negotiate, where possible, for a "fixed equivalent" to meet future increases in cost, in one or other of the following forms:—(a) a *fixed sum* for each shilling per week of wages, or *x* per cent. (as the case might be); (b) a *fixed rate per unit*; (c) a *percentage* on the price, as adopted in some cases where the increase of price was two-thirds of 1 per cent. for each shilling rise in the average wage per week of all the workers concerned; (d) *sliding scales* for each item in cost—a method specially suitable for variations in cost of materials as well as wages.

A Committee under the chairmanship of Mr. Grimshaw considered the question of special clauses embodying fixed equivalents for insertion in contracts instead of the clause known as M.C. 17. In their First Report⁴ they stated that in the case of shell they had found that the Fixed Equivalents clause would have to provide for eight classes of labour, and would involve considerable work. They recommended that, while the equivalents were being worked out for all items bought, the Branch Directors of the Contracts department should be authorised to offer, as an alternative to M.C. 17, small additions to the contract price, to cover any advances in wages during the period of contract. They considered that the amounts to be added should cover materials as well as wages. The Committee felt that, since M.C. 17 would throw on the firm a very heavy burden of accounting work, most firms would prefer to accept the alternative. Provided the Ministry did not insist on exact settlements, the Contracts department would be in a fairly strong position for administering the refunds under this latter system.⁵

¹ Form M.C. 31 (17/12/17).

² *Contracts Department Handbook* (1/3/18), p. 65.

³ Contracts Department Memo. No. 10 (12/12/17).

⁴ Copy in M.C./473. This Committee, consisting of Mr. Grimshaw, Mr. James, and Mr. Vesey, was appointed by the Munitions Contracts Board, 11/12/17.

⁵ Report II., 11 January, 1918.

VIII. Proposal for Payment by a Single Government Authority Regulating Wages.

On 22 November, 1917, at a meeting of the Joint Committee of Contracts and Finance officers,¹ a memorandum by the Admiralty Director of Contracts was read, which suggested that the true solution lay in recognising the fact that "the increased wages awarded or sanctioned by Government are really a subsidy to workpeople, given for the purpose of meeting the increased cost of living and so maintaining efficient output of work." From this point of view, there was no reason for paying the subsidy through the medium of contracts, a method which gave no safeguard against excessive payments or against profit by the employers on the subsidy. "This liability should, therefore, it is considered, be discharged direct, against proof of expenditure of higher wages in Government work, by the Government Labour authority itself, interpreting its own awards." This procedure would conform to the principle that each Department should defray the expenditure due to its own policy.

Three principles should be put into effect simultaneously at a given date :—

(1) One Government authority to decide all questions of regulating wages ;

(2) The same authority to defray, from money voted by Parliament for the purpose, the net increased cost of Government work incurred in wages, due to its own awards after that date ;

(3) Government contracts in future to be strictly on the basis of rates of wages at the given date, and no extra prices to be allowed for awards after that date.

The Joint Committee agreed that the numerous and complicated advances had already created formidable difficulties and would lead to an impossible situation.

The lack of any single consistent policy in determining wages questions was commented upon by the Select Committee on National Expenditure in their Second Report (13 December, 1917). There had hitherto been no check upon the competition between different trades or different grades for higher wages. Several authorities had been dealing with wages questions in different industries independently of one another, though their actions in fact constituted precedents. Nothing had been done in the direction of centralisation until the appointment of a co-ordinating Committee under the chairmanship of Mr. Barnes in November, 1917. Each new cycle of wage advances led to an increase of prices and further demands. If the process continued, the results could hardly fail to be disastrous to the community. The Committee recommended

"that a single policy, under the general direction of one authority, should be adopted in all industries in the determination of wage questions."²

¹ C.P. 133476/17.

² Paras. 31–33.

The Committee thus endorsed the first of the three principles laid down in the Director of Navy Contracts' memorandum.

Following on the same lines, the Munitions Contracts Board, on 2 January, 1918, put forward the following recommendations :—

“(a) If and when further wages advances are granted, adjustments should be dealt with by a joint authority dealing with the whole of the claims from each contractor, instead of with individual contracts.

“(b) The administration should be in the hands of a Joint Committee of the various purchasing Departments concerned, but the actual payment of the claims should be made by the Labour Ministry. All the Departments to assist the Labour Ministry in every way possible in carrying out the work.

“(c) The scheme should be confined to orders covered by a Priority certificate linked up to some order or contract placed by a Government Department.

“(d) The new scheme should not come into operation for three months.”

In a memorandum of the same date,¹ Sir John Mann called attention to the alarming complexity of the situation arising from recent and impending rises of wages. The Ministry contractors had been promised, subject to the Contracts department being satisfied that the contract prices were reasonable, a refund of extra wages due to direct Government action under “orders or awards.” Sub-contractors were clamouring for similar indemnities. Production was threatened by something like a strike among certain employers.

The Cost Variation Clauses agreed upon by the Joint Committee of Admiralty, War Office, and Ministry Contracts Officers would largely reduce the number of cases in which the contractor definitely agreed to bear all risks of increased cost, insuring himself by an addition to the price—a method not conducive to keen bargaining. But the increases of wages had lately been so large, so numerous, and so upsetting to contracts work that negotiations were becoming increasingly difficult, especially through the far-reaching effect upon cost of materials, and the ramifications of sub-contracting. The Ministry made over 50,000 contracts a year, and one large contractor holding about 800 separate contracts made on the average 60,000 sub-contracts annually. These sub-contractors bought materials wholly or partly finished, and so on down to the foundation.

In engineering work the foundation was the prices of iron and steel, recently stabilised by the subsidy method. The Contracts department was dealing with individual contracts, as best it could, by fixed equivalents or postponed settlements; but a breakdown was threatening. Hence alternative methods, *e.g.*, settlement in mass for each contractor, instead of for each contract, had been considered.

¹ M.C./473.

At this juncture the War Cabinet Labour Committee had proposed that the Admiralty, War Office, Ministry of Munitions, India Office, Colonial Office, and Office of Works should confer and submit a joint scheme. On 1 January, the Joint Committee of Contracts Officers had considered this letter and also the scheme proposed by the Admiralty, which briefly was that (a) all contracts should be fixed on the basis of the rates of wages prevailing at a given date; and (b) advances in wages after that date should be refunded direct by the Ministry of Labour to each firm engaged on Government work, but only so far as relating to Government contracts.¹

Sir John Mann, after setting out the *pros* and *cons* of this scheme, recommended that he should be authorised to support the general principle.

The Munitions Contracts Board further considered the Admiralty scheme on 4 January. It was thought that 31 December, 1917, would be a suitable controlling date at which the basis of labour costs should be fixed. A careful record of wages at this date would be required. Before the proposals were finally adopted, provision must be included for a reduction in prices, should wages fall below the basic rates.

The proposed conference with representatives of the India Office and the Office of Works took place on 4 January.² It appeared that these Departments had no objections to the Admiralty scheme. The War Office required further time for consideration.

A Council Committee under the chairmanship of Sir L. Worthington Evans was formed to determine the Ministry's policy.³ It took into consideration the method of meeting wage increases by fixed equivalents, including percentage additions to contract prices, the percentages varying for different classes of goods according to the proportion which labour cost bore to the total price. This entailed a classification of goods into a small number of groups, with sufficient accuracy to provide a basis of negotiation with Federations of employers. A member of the Technical Cost staff was attached to each Supply department to help in the work of defining these groups.

The Committee referred the method of grouping to the Fixed Equivalents Committee, which reported on 11 January that they thought the most economical way of dealing with the advances was that recommended in their First Report,⁴ and that the method being considered by the Council Committee would cause dissatisfaction and jealousy among contractors, because of the necessary inaccuracy of groups and standards. They had, however, arranged for the staff

¹ It was pointed out that this proposal had a precedent in the practice by which the allowances of War Munition Volunteers had been refunded direct by the Government to the employers through the Labour Exchanges.

² The Colonial Office did not send a representative, their purchases being so small that they were not affected.

³ Council Committee, No. 49. M.C./473.

⁴ See above, p. 99.

to define the categories, as requested. They also recommended that rules should be laid down to oblige the main contractor to deal fairly with his sub-contractors.

At the meeting of the Joint Committee on 29 January, Sir John Mann announced that the Council Committee had agreed upon a report to the Minister, proposing that the extra cost of wages should be met by adding a percentage to the price. The War Office, it was stated, was already using in some cases the method of adding an amount per unit when the advance came, which was in effect the same as that proposed by the Ministry. They disapproved of the Admiralty scheme. The Admiralty representative objected that the percentage method would prove to be more than a mere refund of extra cost and carry with it extra profit—a result which the Contracts department ought, if possible, to prevent. The Admiralty would probably not adopt the method except under instructions from the highest authority. Sir John Mann pointed out that the War Office dealt mainly with staple industries, the Ministry with large quantities of repetitive work, and the Admiralty with contracts covering long periods. Probably both the percentage method and the method of refunding at source should be used in accordance with the nature of the case.

The Council Committee reported on 8 February, 1918.¹ They were convinced of the principle of compensating both contractors and sub-contractors. They had considered three alternative methods:—

(1) The Treasury decision of June, 1917,² that where an increase of wages, due to an award by the Committee on Production or other authorised tribunal, had deprived a contractor of such reasonable profit as, in the opinion of the Ministry, he should have secured, the Ministry might pay such an additional sum (not exceeding the amount actually and necessarily paid as wages increase) as to give a reasonable profit.

Attempts to carry out this decision had failed. Contractors found it difficult to make out the detailed claims required; and the Ministry could not examine and allow them without long delay.

(2) To start from a point at which wages were stabilised at a given date; to fix all contract prices on the basis of stabilised rates; and thereafter to refund at source increases necessarily paid on Government contracts, such refund being made by the Ministry of Labour or other Department acting for all contracting Departments.

The Committee had not fully considered the broad question of stabilising wages, which might have great advantages; but they did not recommend a system of refund on this basis. It would entail setting up a new organisation; two systems would be in operation, one for contracts before the fixed rate, another after; and there would be difficulty in deciding what proportion of a firm's wages bill was incurred in direct or indirect Government contracts and in private work, and what amount of increase was actually due to Government awards.

¹ M.C./473.

² See Third Report of the Departmental Contracts Committee, above, p. 89.

(3) To fix a percentage or a sum per unit by which contract prices should be increased to meet the cost of an awarded increase of wages.

The Ministry had applied this method, notably to shell prices, with some success. In applying it generally, the allowance could not be varied according to profit which might be included in a given contractor's prices, or according to varying methods of manufacture. A schedule attached to the Report¹ showed, as regards considerable classes of goods purchased by the Ministry, the approximate percentage necessary to be added to the total prices to meet increases awarded to labour employed on actual production. For some classes of goods, variations in scales of pay, in classes of labour, and in degrees of dilution, made it impossible to fix a percentage. But the Committee considered this method the most satisfactory, as a broad basis of settlement.

They therefore recommended

“that, when wages are increased owing to any award as to wages made upon any reference for settlement under the Munitions of War Acts, 1915-1917, or any order or award as to wages made by the Minister or by any Tribunal appointed for that purpose pursuant to any Act of Parliament, contract prices should be increased by a percentage, or a fixed sum per unit, to cover increases necessarily paid in shop labour. The percentages should be fixed on the basis of information available in the Ministry and in consultation with Associations or Federations of employers; and in negotiating with Federations or Associations it may be necessary to admit some increases in the percentage on account of rises necessarily given as a consequence of a wages award. It should be a condition of payment that the main contractor should pay to sub-contractors a fair proportion of the increase granted, such proportion in case of dispute to be decided by the Ministry.”

To give effect to this decision they recommended :—

(1) That the necessary Treasury authority should be obtained to depart from the principles laid down, which did not authorise a general admission of liability, and which called for full examination of claims and limitation to profits considered reasonable by the Ministry;

(2) That the Admiralty and War Office should be invited to deal with claims similarly;

(3) That a branch of the Contracts department should be set up and absorb the existing section. In dealing with claims, this branch was to take account of detailed recommendations laid down in a schedule to the Report.

This Report was forwarded to the Treasury on 12 February, 1918, with a letter explaining that very great difficulties had been experienced

¹ See copy in HIST. REC./R./500/27.

by contractors in formulating, and by the Ministry in examining, claims in detail. The Minister accordingly desired authority to grant such increases of price as he might consider reasonable on the conditions generally laid down in the Report.

The letter also mentioned the Cost Variation Clause¹ recently agreed with the War Office and Admiralty for inclusion in future contracts. There were, however, a large number of contracts made since the Treasury Letter of 9 June, 1917, which contained no provision for recouping contractors for increased cost due to wages awards. The Minister asked the Treasury to authorise the addition of the new clauses to these contracts.²

The Treasury, in reply,³ adhered in principle to the Third Report of the Departmental Contracts Committee, and declined to admit that a claim for compensation necessarily arose in respect of increased wages awarded by a Government tribunal. They recognised, however, the difficulties involved in the detailed examination of claims, and agreed that the Minister might make such increases of price as he considered reasonable upon a percentage basis or at a fixed amount per unit, on the method laid down in the Report and its schedule. It was to be a condition of the grant of percentage increases that the contractors should undertake to deal with sub-contractors by giving them such portion as they might agree, subject to appeal to the Ministry, to be fairly attributable to the sub-contract.

When a contractor refused the Ministry basis of compensation, any claim should be dealt with on the detailed method of the Treasury Letter of 9 June, 1917.

The Treasury concurred with the Minister's recommendation against direct repayment at source by a Government Department.

They also agreed that

"when the Minister is satisfied that the prices of contracts concluded since the Treasury Letter of 9 June, 1917, have not included any margin for increase of wages or for an unreasonably high profit (which would have the same effect), the new Clause settled providing for variations of prices to meet variations of wages may be deemed to be included therein."

At the Joint Committee of Contracts and Finance Officers on 19 March, the question was raised whether the above Treasury Letter gave power to allow claims on contracts which contained no reservations as to the effect of increases of wages on contract price. It was reported that Sir L. Worthington Evans had expressed the opinion that the letter did give this power. This ruling was followed by the Ministry.

¹ M.C. 17.

² M.C./473.

³ Letter 6298/18 (14/2/18).

IX. The Ministry's Final Policy.

In a letter of 15 February, 1918, the Federation of British Industries and the Central Council of Associations of Controlled Firms were informed that it had been provisionally decided to fix, as regards classes of goods purchased, a percentage of increase in contract price as a fair equivalent of enhanced expenditure on shop labour, and to vary prices fixed in contracts accordingly from a date to be agreed subsequent to the date of a particular award of increased wages. The main contractor was to compensate sub-contractors. The Federation and the Central Council were invited to draw up a schedule of increases in contract prices claimed in respect of each award affecting classes of goods in which they were interested, with a view to discussion with representatives of the Ministry, at a conference on 20 February.¹

The outline of the "Ministry Scheme," as put before the manufacturers' Association, was as follows :—

(1) Goods to be classified under 12 groups according to the percentage of productive wages included in the selling price.

Each group will have a range of 5 per cent. in productive wages, *i.e.*,

Group 1, 5 per cent. to 10 per cent. productive wages.

Group 2, 10 per cent. to 15 per cent. productive wages, etc.

(2) The average wages paid by the contractor in the production of the goods to be taken : (a) those on day-work rates ; (b) those on piece-work and bonus rates ; and the effect of the rise in wages on these averages to be worked out in a percentage.

(3) The amount of productive wages spent during any period or group of periods to be estimated, based upon the total derived from the grouping system (1).

(4) The percentage effect obtained under investigation (2) to be applied to the amounts derived from (3). Sub-contractors are to be treated as work carried out by the main contractor.

(5) The total claim is then to be made out and offered to the contractor, who, if he declines it, can resort to the detailed claim, Form P.M.42, or its equivalent.

The conference with a deputation from a Joint Committee of the Central Council of Associations of Controlled Firms and the Federation of British Industries was held on 20 February, 1918. Sir L. Worthington Evans explained the method which the Ministry proposed to adopt.

Sir Wilfrid Stokes expressed a preference for a fixed sum per unit (instead of a percentage) as had been usual with Board of Management contracts. The Joint Committee represented by the deputation had, in their deliberations, divided articles under two very broad heads : (1) the repetition order, such as shell and

¹ M.C./473.

components; (2) the infrequent article, or articles made in small numbers. For (1) the system followed for Board of Management contracts would be easily applied. For more complex articles, where the factors of error became very large, they suggested a different scheme.

Sir L. Worthington Evans expressed the hope that the two schemes together might be found, upon examination, to cover the whole ground.

On 4 February the Minister had approved the formation of a new Contracts section to deal with contractors' claims. Major George Hamilton, M.P., consented to take charge of it, with the title of Director of Contracts Claims.¹

The new forms of contractors' claims were prepared by Major Hamilton by April. The explanatory letter (M.C. 78) referred only to wages increases. It was proposed that compensation should be given "by fixing, as regards certain classes of goods purchased by the Ministry, a percentage of increase in contract price, or a rate of increase per unit, or a lump sum payment," as a fair equivalent of the additional cost of shop labour, and that prices should be varied accordingly from a date to be agreed, subsequent to the date of the award affecting the contract. Claims would be considered in respect of increases dating from and after the award of the Committee of Production dated 1 March, 1917, which came into operation on 1 April, 1917. Groups of contractors supplying goods of the same class were invited to submit a percentage for the consideration of the Claims department.

In forwarding these new forms for the consideration of the Treasury, the Ministry called attention to certain clauses which had been included.²

(1) Many claims were based on increased cost of material, due to Government action either (a) through their control of selling price, or (b) through awards of increased wages. Under (a), the Minister requested authority to grant reasonable increases of contract price. Claims under (b) it was proposed to treat as increases necessarily paid to sub-contractors.

(2) The Council Committee's Report had excluded agreed rises under the Munitions of War Act, 1915, Section 4 (2). In many cases, however, increased wages under this section were found to be analogous to awards of the Committee on Production, and the Minister desired authority to allow them.

In reply, the Treasury³ objected to the forms as practically an invitation to contractors to make claims, and as likely to prejudice other contracting Departments. They reiterated that they had not accepted the principle of compensation where hardship was not

¹ The formation of this Branch (C.C.L.) was announced in Contracts Department Memo. No. 33 (13 March, 1918), which also defined the procedure.

² Letter of 20 April, 1918. M.C./473.

³ No. 15930/18. 11 May, 1918.

established. They had only agreed to the method of adding a percentage or a sum per unit as a matter of the machinery of assessment. In the case of increased cost of material, they would not give general authority, except in so far as it was covered by the rule relating to sub-contractors. They viewed with apprehension the proposal concerning agreed rises under Section 4 (2) of the Act of 1915. It might be made the basis of allowing any contractor to increase wages at will with the Ministry's consent.

The Ministry replied¹ on 16 May that the circular was to be issued only to contractors who had made claims or intended to do so. They urged that it was impossible to refuse claims based on increased cost of material due to Government action, and pressed for authorisation. It was argued that in some cases of wage increases under Section 4 (2) of the Act, the Committee on Production would certainly have made awards, had the circumstances been submitted to them. Authority was asked to settle claims based on such increases in the past. For the future, the clause now in use did not provide for compensation in such cases, and, if claims should arise, the Treasury would receive a further communication. Finally, the Ministry undertook to adhere to the procedure recommended by the Treasury to ensure the fairness and accuracy of claims. Books would be examined in doubtful cases.

The Treasury,² on 29 May, suggested that paragraph 1 of the circular should be amended to meet their views. They considered that claims based on increases under Section 4 (2) of the Act should only exceptionally be admitted, when the Ministry of Labour agreed that they were precisely analogous to Committee on Production awards. The question of increased cost of material had been referred to the Departmental Contracts Committee.

This Committee reported on 1 November, 1918,³ that they could not distinguish between the additional cost of a contract arising from the increased price of controlled materials and that arising from advances in wages under awards of the Committee on Production. They, therefore, thought that the principles and procedure set out in their Third Report of 18 May, 1917,⁴ should also apply to claims in respect of increased price of materials. In view of a possible reduction in the prices of controlled materials, they suggested that clauses similar to the Ministry's Cost Variation Clauses should be inserted in future contracts. If the principles in force with regard to wage advances were adopted in the case of materials, the Committee presumed that arrangements would be made similar to those authorised by the Treasury on 14 February, 1918, by which increases of contract prices were to be settled on a percentage basis or on a fixed amount per unit.

The Treasury approved these recommendations.

¹ M.C./473.

² No. 19570/18. 29 May, 1918.

³ Report enclosed in Treasury Letter No. 42138/18 of 23/12/18. M.C./473.

⁴ See above. p. 87.

The Munitions Contracts Board recommended some minor changes in Forms M.C. 17, 18 and 19. Under an old clause used in some contracts the contractor had been paid as soon as the amount due was ascertained, whereas the new forms delayed payment until the completion of the contract. On 18 June a sub-committee recommended alterations to the effect that when the amount of the increased payment was agreed, it should thereafter be added to the contract prices, but where agreement had not been reached, it should be postponed until completion.

On 28 June Mr. Judd proposed that in Form M.C. 19, para. 2, the words "rates of wages" should be substituted for "cost of labour." Contractors often stated that a rise in wages of (say) 10 per cent. not only increased their wages bill by 10 per cent., but caused a decrease of output, since the workers did not work so long or so hard on the higher wages. Thus the "cost of labour" was increased by more than 10 per cent. The suggestion, therefore, was to confine the Ministry's liability to increased rates of wages only. Major Hamilton stated that the question had not yet been raised on any contractor's claim, but he agreed to the proposal.¹

On 4 July, 1918, a letter from the Ministry of Labour was addressed to the War Office Contracts department on the inflation of wages by collusive or unauthorised agreements between employers and work-people.² The War Office was understood to decline any responsibility for preventing wage advances, and to regard the Ministry of Labour as responsible for any action necessary. The Minister of Labour stated that the other principal contracting Departments took the opposite course. Under the Munitions of War Act, 1915, the Ministry of Munitions had taken powers to restrain any controlled establishment from changing rates of remuneration without its previous sanction. Further, the Minister of Labour had no power to prevent employers from raising wages if they desired to do so, and he could, therefore, accept no responsibility. He considered that "the contracting Department concerned must accept responsibility for any advances in wages given by a Government contractor other than in pursuance of an award of an Arbitration Tribunal instituted in terms of a reference from the Ministry of Labour or in pursuance of an Order of the Minister of Munitions under the Munitions of War Act, 1917. If an agreement is made varying the awards of an arbitration authority or giving an advance not authorised by the contracting Departments and apprehension arises as to the result of this advance upon other sections of industry, the matter may suitably be referred to the Ministry of Labour on the lines laid down in the decision of the War Cabinet. This procedure is adopted by the Ministry of Munitions and the Admiralty."

A copy of this letter was forwarded to the Contracts department. In discussions with the Labour department of the Ministry, it was proposed that every contract should prescribe a scale of wages to be paid, different for different areas, but uniform within each area. It was objected that this would mean levelling up all existing inequalities,

¹ Munitions Contracts Board, Minutes 421, 468

² Munitions Contracts Board, Minute 450.

since reductions were out of the question, and also that the device would be defeated once more by the offer of bonuses, nominally for increased output or efficiency, but really to entice labour from other contractors. The Labour department also suggested that in calculating costs of production the Ministry should disallow all bonuses on production as part of the cost and leave them to be paid out of profits. The Contracts department undertook to do this where it could be ascertained that the bonuses were fictitious and improper, but the Munitions Contracts Board explained that they could only act on complaints from the Labour department. They agreed to ask the Labour department to furnish a Black List of suspected firms, and offered not to place a cost contract with these firms except in consultation with the Labour department.¹

Mr. McLennan mentioned cases of particular firms in which the Labour department had authorised advances which were not advances approved by the Committee on Production and were, therefore, not recoverable under Form M.C. 17. The Board considered that such claims should not be admitted.

On 19 July, the Controller of Munitions Contracts forwarded to the Labour department a list of firms holding contracts on one or other of the bases on which the Ministry was directly interested in the cost (cost and percentage, cost and fixed profit, cost and profit increasing with economies affected). He requested to be informed if the Labour department had any complaint against any firm on the list and what steps (if any) should be taken by the Contracts department to support the Labour department in the regulation of wages. Contracts officers had been instructed, where time permitted, to consult the Labour department before placing contracts with firms not on the list.²

On the same day the Munitions Contracts Board considered a statement from Mr. Gordon Campbell of the Labour department, pointing out that the object and justification of bonus on output was increase of output and reduction of cost. The whole responsibility for its effect on cost must rest with the employer, who ought never to be granted a higher price in consequence of his having introduced the system. One firm had claimed an increase of contract price on this ground. The effort to control wages would be nullified if such claims were successful.

It was stated that the practice of the Contracts Costs department was to refer the question of bonuses over and above normal piece-work rates to the Labour department, and to exclude such bonuses from costs if they were not sanctioned by that department.

The Board finally agreed that :—

(1) Bonus systems not approved by the Labour department should be excluded from the cost of manufacture ;

(2) It was impossible to exclude from the cost of manufacture bonuses approved by the Labour department, but the amount and extent of such bonuses should be borne in mind by the Contracts officer in fixing the amount of profit allowable.³

¹ Minute 450. 12/7/18.

² Munitions Contracts Board, Minute of 19 July, 1918.

³ Munitions Contracts Board, Minute 481.

It was an instruction to Contracts officers that in general contracts of less than three months' duration should be excluded from the operation of the Wages Clause. On 11 October, 1918, however, it was reported to the Munitions Contracts Board that various bodies had protested against this rule. The Admiralty and the War Office had been consulted and had agreed to a reduction of the period. The Board decided to reduce it from three to two months.

On 18 October, 1918, it was reported to the Board that, owing to some misapprehension of the postscript to Contracts department Memorandum 33, defining the procedure in connection with Contractors' claims, many contracts placed after 17 December, 1917, had not contained either a Cost Variation Clause or a Waiver Clause. It was decided to issue a further memorandum to the effect that in future the contingency of advances in wages and materials must always be raised with contractors, and that all contracts must contain either a Cost Variation Clause or a Waiver Clause.

The Board was informed that the practice of Major Hamilton's Claims branch was to treat contracts of less than three months' duration which were silent on the point (*i.e.*, contained neither the Wages Clause nor the Waiver Clause) on the same lines as long-period contracts. The Board considered that this practice was incorrect and remitted the point to Major Hamilton and Mr. A. E. Watson for consideration. On 18 October, the Board agreed that it would be necessary to explain to the Treasury that it had not been found possible to regard "silent" contracts on the basis that the contractor accepted the risk of advances in wages and materials, and that hitherto claims arising out of contracts not containing a Waiver Clause had been dealt with as if Wages and/or Materials Clauses had been included. Major Hamilton agreed that henceforth he would resist claims on contracts not containing Cost Variation Clauses.

CHAPTER IV.

BREAK CLAUSES.

I. Introductory.

The general conditions of contract attached to the tender forms issued by the Ministry of Munitions until September, 1916, were modelled upon the tender form which had been used by the Contracts branch (A7) in the Master-General of the Ordnance department at the War Office.¹ These conditions provided in the usual manner for termination of the contract in case of default ; but they did not include any Break Clause to be brought into operation at the conclusion of the War.

The Ministry of Munitions placed running contracts terminable by either party on an agreed notice, ranging from fourteen days upward according to the nature of the goods and the normal time taken to produce them. In some cases a minimum period was guaranteed in order to safeguard the contractor.

The present chapter will deal with the further expedient, introduced in 1916, of the special War Break Clause. This was designed for insertion in all contracts extending over three months or upwards, whether running contracts or contracts for a specified quantity. It empowered the Minister to terminate the contract, if the War came to an end or was, in his opinion, likely to end shortly. It was already open to the Minister to instruct a contractor to stop deliveries under any contract and to pay compensation for the loss occasioned by cancellation. The War Break Clauses were matured with a view to defining and limiting the amount of contractors' claims where it was decided to stop supplies at the end of the War.

The policy to be adopted with regard to the discontinuance of munitions supplied upon the cessation of hostilities plainly involved many considerations beyond the purview of the Contracts department. It must be clearly understood that the Contracts department acknowledged no responsibility for the policy which governed the bringing of War Break Clauses into operation. It only recognised the duty of making the best possible bargains with contractors so as to limit the Government's responsibility. The problem of reconstruction was left to other authorities. The War Break Clauses were therefore framed in a permissive form, conveying an option to the Minister to terminate the contract, but not tying the hands of the Government in any way with respect to the extent to which the cancellation was to be carried into effect. On this point the Clauses were silent.

Special forms were devised to suit particular kinds of production ; but certain general features may here be mentioned.

In most cases there were two main time factors. The first was the " period of full production," that is to say, a period, as brief as was deemed reasonable, during which the contractor might continue

¹ Army Form K. 1271 (Special for A7).

full production after receipt of the notice. In the great majority of contracts this period was fourteen days, but extensions were granted in the case of many stores according to their nature and the time taken to manufacture them. The second time factor was known as the "period of completion." This was a longer period within which the Minister might allow the contractor the privilege of delivering the quantity of articles actually in course of manufacture at the end of the period of notice, or, in some cases, the quantity due in the period of full production. In the standard form, the period of completion was not defined. Articles might be delivered "at such rate as may be mutually agreed, or in default of agreement at the contract rate." In some special forms, the period was defined and ran to many months, the policy being to extend the period of completion so as to bridge the time of transition and enable the contractor to turn over to peace products with the least possible dislocation.

Further, the Clauses provided that the Minister should take over unused material and components at cost, in some cases with an allowance thereon, and indemnify the contractor against commitments properly incurred for the purchase of such material and components. Work in progress was also to be taken over at cost in materials, wages, and charges, together with an allowance.

Later (in 1917) a new provision was introduced, binding the Minister to pay the time wages of workmen, if they were kept unemployed during the period of notice, and the contractor were not able to find other work for them.

This brief review of the main provisions suffices to bring out the point of most general interest. The War Break Clauses ought, theoretically, to have been framed for all Departments on lines dictated by a clearly conceived policy, laid down by Government, for the reconstruction of industry. Manufacturers had been induced by every possible means to convert all the capacity at their disposal to war production. In the case of munitions supplies, this process continued for a long time, certainly more than half the actual duration of the War. The reversion to peace production, coming, as it must, suddenly, was likely to occupy a much shorter period; but for that very reason it was bound to cause a more violent dislocation. Logically, the first thing to be done was to frame such plans as the uncertainties of the case permitted for this inevitable emergency. The Departments could then have been instructed to make their contracts accordingly.

The actual order of events was the reverse of this. The Departments made innumerable contracts for war supplies with no guidance from the Government and, at first, without consultation even among themselves. The most important Department of all, the Ministry of Munitions, elaborated its own War Break Clauses with provisions as favourable to the purchaser as contractors could be induced to accept. The governing principle was not the general interest of the country in the resumption of peace work, with all the problems of industry and labour implied. The Contracts department

could not look beyond the interest of the Government as a purchaser of immense quantities of supplies which, at some unknown date, would suddenly be wanted no longer. They could only aim at making it possible to stop all forms of munitions production at the earliest possible moment after the cessation of hostilities, and extricating the Department from its bargains with the minimum of loss in money or waste of material in useless production. What would happen afterwards to the plant and labour thus thrown idle concerned them only in so far as the other parties to their bargains insisted on being safeguarded. Hence the main idea underlying the Break Clauses was that munitions work should be shut down and the business of the Department wound up as rapidly and cheaply as possible whenever the end of the War should come within sight. When the Government and the contractors began to turn their attention to reconstruction problems, there were thus a vast number of contracts in existence which contained War Break Clauses. Hence the impression gained currency that the questions of reconstruction policy were prejudiced. This was not in fact the case. Owing to the permissive form in which the clauses had been cast, they did not necessarily entail the waste of money on labour and material in useless production. It was open to the Government to extend the periods allowed in the clauses, or to adopt other solutions of the problem of demobilisation.

II. The Standard War Break Clause.

The proposal that a Break Clause should be inserted in all contracts under which deliveries were to be made after 30 September, 1916, was made by Mr. H. B. Jenkins of the Contracts department in a memorandum dated 29 May, 1916.¹ The practice at this time was that contracts for munitions were for the most part made for short periods of supply, usually three months or six months. Break Clauses were, as a rule, inserted when it was necessary, for special reasons, to give a contract for a specially long period, as in the case of big guns generally and occasionally in the case of such articles as the No. 80 Fuze, where considerable preparation was needed before manufacture could commence. Under assisted schemes it was usual to insert a provision giving the Ministry power, in the event of the War coming to an end, to terminate the contract without notice on taking over the firm's commitments. But in the mass of contracts limited periods were given without a Break Clause.

Mr. Jenkins recommended that a clause allowing the Ministry to stop the firm on taking over their commitments should be made a part of the common form of all contracts running after 30 September; and, further, that a circular should be issued to all contractors announcing this intention, in order to exclude this question from individual bargains.

This proposal was adopted and a circular² was issued to direct contractors on 22 July, 1916, in which it was explained that hitherto the practice had been to make contracts for short periods or terminable

¹ Termination of Running Contracts at the end of the War. 94/Gen./460.

² 94/Gen./460.

at a few weeks' notice, without any special clauses to enable the contractor to arrange ahead for the supply of the necessary raw material. It was now proposed to modify this arrangement so as "to ensure the maintenance of a maximum output and at the same time both to protect the Ministry from the possibility of being left with an obligation to accept large quantities of warlike stores which would not be required in the event of a sudden termination of the War, and also to protect the contractor from incurring loss by the cessation of manufacture." Notice was given that all "new or continuation contracts under which deliveries would be made after 30 September, 1916, would contain a Break Clause empowering the Minister to terminate the contract at short notice, subject to suitable arrangements as to the contractor's stock and commitments for material, etc. It was added that "contractors will not, of course, under this arrangement be expected to enter into sub-contracts extending beyond the duration of the principal contract without first communicating with the Ministry."

The clause was framed at a series of conferences between the Assistant Financial Secretary and the Director of Munitions Contracts.¹ After receiving the Minister's approval, the clause was inserted in a revised form of the General Conditions of Contract (M.C. 1).

The terms of the proposed Break Clause in the form applicable to contracts placed by Boards of Management were communicated to the Boards on 24 July.² The accompanying instructions only directed that it should be included in contracts for shell.

For the purpose of comparison, the two clauses are here given side by side, the differences being marked by italics.

COMPARISON OF THE FORMS OF BREAK CLAUSE FOR DIRECT CONTRACTS AND FOR BOARD OF MANAGEMENT CONTRACTS.

Form for direct contractors (M.C. 1).

(6) *In all contracts extending over a period of three months and upwards³ the Minister shall, in addition to his power to terminate his liability under this contract in case of default on the part of the Contractor, have power to*

Form for Board of Management contractors (D.A.O./C. 8).

1. In addition to the power of *the Board* to terminate its liability under this contract in case of default on the part of the Contractor, the *Board* shall have power to terminate its liability thereunder at any time *after the*

¹ 94/Gen./454.

² Circ. D.A.O./C. 8.

³ Mr. Strode ruled that the clause would apply :—

(1) To a running contract subject to less than three months' notice which has continued for more than three months ;

(2) To a running contract subject to less than three months' notice where the period for which the contract has been in force plus the period of notice is more than three months ;

(3) To a fixed quantity contract where the period between the date of the contract and the commencement of deliveries plus the delivery period is more than three months. (Munitions Contracts Board, Minute of 2 November, 1918.)

Contractors—Contd.

terminate his liability thereunder at any time by giving fourteen days' notice in writing to the Contractor of his desire to do so, *if the present war shall terminate or if the Minister shall be of opinion that the war is likely to terminate shortly.*

In the event of such notice being given the *Minister* shall be entitled to exercise the following powers or either of them :—

(a) To direct the Contractor to complete in accordance with the contract all or any *articles* in course of manufacture at the *expiration* of the notice and to deliver the same *at such rate as may be mutually agreed on or in default of agreement at the contract rate.*

All *articles* delivered by the Contractor in accordance with such directions and accepted shall be paid for at the contract price.

(b) To direct the Contractor to cease manufacture wholly or partially at the expiration of the said notice.

2. In the event of such notice being given and of the Contractor having *reasonably* performed all the provisions of the contract binding upon him down to the date of the notice,

Management Contractors—Contd.

31st day of October, 1916, *if circumstances should arise which in the opinion of the Minister of Munitions necessitate the stoppage of the manufacture of the shell to be supplied under this contract, by giving fourteen days' notice in writing to the Contractor of its desire to do so.*

In the event of such notice being given the *Board* shall be entitled to exercise the following powers or either of them :—

(a) To direct the Contractor to complete in accordance with the contract all or any *shell* in course of manufacture at the *date* of the notice, and to deliver the same *by such date as the Board may determine.*

All *shell* delivered by the Contractor in accordance with such directions and accepted shall be paid for at the contract price.

(b) To direct the Contractor to cease manufacture wholly or partially at the expiration of the said notice.

2. In the event of such notice being given and of the Contractor having *duly* performed all the provisions of the contract binding upon him down to the date of the notice,

(a) *The Board will pay to the Contractor in respect of his outlay for jigs, gauges, small tools and other similar articles provided by him for the purpose of the contract, a sum equal to sixpence for each shell undelivered and not due for delivery when manufacture ceases. The jigs, gauges, small tools, and other articles, will remain the property of the Contractor.*

Contractors—Contd.

(c) The *Minister* shall take over from the Contractor at the cost price thereof all *material* and components in the possession of the Contractor at the termination of the notice properly provided by or supplied to the Contractor for the performance of this contract and unused owing to the exercise of the power of termination.*

(d) The *Minister* shall indemnify the Contractor against any commitments which in the opinion of the Minister have been reasonably and properly incurred by the Contractor for the purchase of material and components in respect of the portion of the Contract uncompleted owing to the exercise of the power of termination.

(e) The *Minister* shall take over from the Contractor all *articles* in course of manufacture at the expiration of the notice which the Contractor shall not be directed to complete as aforesaid and will pay for the same the cost incurred by the Contractor calculated on the following basis :—

(i) *The cost of the material used so far as not paid for under sub-clause (d) above ;*

(ii) *The cost of the actual productive labour employed on such articles in course of manufacture ;*

(iii) *Such establishment charges as the Minister may consider to be reasonable and properly applicable to the contract ;*

(iv) *An allowance of 5 per cent. upon the total.*

Management Contractors—Contd.

(b) The *Board* will take over from the Contractor at the cost price thereof all *metal and components* in the possession of the Contractor at the termination of the notice *which in the opinion of the Minister have been* properly provided and supplied to the Contractor for the performance of this contract but shall be unused owing to the exercise of the power of termination.

(c) The *Board* shall indemnify the Contractor against any commitments which in the opinion of the Minister have been reasonably and properly incurred by the Contractor for the purchase of material and components in respect of the portion of the Contract uncompleted owing to the exercise of the power of termination.

(d) The *Board* will take over from the Contractor all *shell* in course of manufacture which the Contractor shall not be directed to complete as aforesaid, and will pay for the same on the following basis :—

The metal and components used in such shell will be paid for at the cost price thereof, and such portion of the balance of the contract price for the finished shell will be paid as, in the opinion of the Minister of Munitions, is proportionate to the amount of work done upon the shell at the termination of the notice.

* See footnote on p. 118.

The addition of the new clause to the common form for direct contractors was announced to the Contracts department on 17 August, with instructions that the cases where compensation had to be given for plant, buildings, and tools were dealt with separately.¹ On 31 August, the department was informed that contracts might now be entered into, if necessary, for delivery extending to 31 March, 1917, provided the Break Clauses were included. This decision was to apply to contracts generally, except as regards stores (*e.g.*, shell), for which special arrangements were in force to renew contracts from time to time at revised prices.²

The clause was brought into operation with very little opposition, and it appeared in a very great majority of Ministry contracts. Being permissive in form, it allowed the Ministry considerable latitude of discretion in exercising its powers. After consultation with the Ministry, the clause was adopted with very slight variations by the Admiralty and by the War Office.³

On 10 November, 1916, it was decided at a meeting of the Boards of Management Executive Committee that all new contracts placed by Boards of Management for shells or any other munitions should be subject to the same conditions as all direct contracts with the exception of the condition involving a penalty for late deliveries.⁴ A new form (M.C. 4) was accordingly issued with a Circular⁵ calling attention to the Break Clause, and directing that it should be included in all contracts extending over a period of three months and upwards. Further, the Boards were to approach all their contractors who held a running contract, with a request that they would agree to the addition of the new conditions, including the Break Clause, to the terms of their existing contracts. In the event of refusal, notice to terminate was to be given, and a fresh contract arranged in the new terms. The practice of the Boards was thus brought into line with the Ministry's dealings with direct contractors.

III. Exceptions to the Standard Clause.

In certain classes of contracts the standard clause was either not introduced or not accepted by contractors. The following are the principal exceptions which call for notice.

* At an inter-departmental conference on 7 November, 1916, it was decided that the material to be taken over under (c) was only material which was a necessary part of the article to be produced. It did not include such things as coal and other consumable stores. Mr. Mann, who was present, considered that the question raised by Messrs. Kynoch as to coal having been bought for their contracts at an enhanced price, should be dealt with by the Controlled Establishment Branch, who, in assessing profits, would allow for the drop in value of all consumable stores due to the cessation of hostilities. (94/Gen./543.)

¹ Contracts Branch Memo. 62 (17/8/16), 94/Gen./454.

² Contracts Branch Memo. 63 (31/8/16), D.D.G.A./15510/0.

³ 94/Gen./597. Joint Committee of Contracts and Finance Officers, Minute of 13 July, 1917.

⁴ 94/Gen./532.

⁵ D.A.O./C. 11 (29 November, 1916).

(a) CONTRACTS FOR SHELL COMPONENTS.

Certain manufacturers of fuzes objected to the shortness of the notice (14 days) under the standard clause. They pointed out that a longer term should be allowed for articles of a complex nature which took a long time to manufacture.

This point was considered at an inter-departmental conference on 7 November, 1916. It was decided generally that contractors who objected might be offered an alternative clause, provided that, if the Break Clause were put into operation and they were told to stop work, no new work should be begun from the date of the notice, but the contractor was to have a period in which to finish up the work in hand. The period to be allowed for finishing up would vary with the various classes of munitions according to the time taken for the whole series of operations. In the case of articles known as "complete stores" (*i.e.*, those for which Woolwich issued a separate drawing), the period would be 28 days. For "incomplete stores" the period would remain 14 days and no change in the clause would be required. For small arms ammunition the period would be six weeks.¹

In accordance with this decision, a clause was drawn for insertion in contracts for fuzes and other similar shell components. This clause substituted 28 for 14 days' notice, subject to the provision above mentioned. It also contained the following additions:—

(1) To Clause 6 (c), providing for the taking over by the Minister at cost price of materials and components unused at the termination of the notice:—

"With the addition of a sum equal to $2\frac{1}{2}$ per cent. of such cost price in full satisfaction of all expenses of the Contractor in storing and handling the same."²

(2) To Clause 6 (e), providing for the taking over of articles in course of manufacture:—

"For the purposes of Clause 6 (e), articles in course of manufacture shall mean material and components upon which some work of manufacture by the Contractor has been done, but shall not include anything to which Clause 6 (c) applies."³

(b) SPECIAL ARRANGEMENTS WITH THE ARMAMENT FIRMS.

Special negotiations took place with the armament firms as regards contracts for (1) fuzes and other shell components; (2) shells; (3) guns.

(1) *Fuzes, etc.* The armament firms were not satisfied with the concessions described above. After prolonged discussion, a special form of clause for fuzes, cartridge cases, primers, friction tubes, and plugs, was agreed with the firms. This form is given in Appendix X.

¹ 94/Gen./543.

² It was decided at the inter-departmental conference on 7 November, that this special addition to Clause 6 (c) should be confined to contracts for fuzes, cartridge cases, and primers. If it should be asked for in the case of shell contracts, it was agreed that an allowance of 1 per cent. would be sufficient. (94/Gen./543.)

³ The full form of this clause is given in Appendix IX.

(2) *Shells*.—The difficulties involved in terminating shell contracts had been described by Messrs. Firth in the course of negotiations on the subject of their contract for 4·5-in. H.E. shell.¹ At an interview held on 29 March, 1916, to discuss the renewal of this contract, the firm had been informed that future contracts for shell would not be given for a definite quantity, but on the basis of weekly output, terminable at three months' notice from the Ministry. The firm subsequently wrote stating their difficulties with regard to giving notice to their sub-contractors for machining. They pointed out that, as main contractors, their services and responsibilities, unlike those of local committees, included the production and supply of shell bodies and the consequent provision of steel for billets. Taking the four stages: (a) the supply of steel, (b) the forging of shell bodies, (c) the supply of driving bands and components, (d) machining; it was clear that the notice terminating any one of these could not coincide in point of time with the notice terminating any other. In order that the machinist should finish all his forgings, there must come a time when he could not put any more forgings into machining operations. From that time to the end of the period of notice, the machines would, one by one, fall out of service in the sequence of operations until the whole plant came to a standstill. At the beginning of this "clearing-up" period, delivery of shell forgings must be stopped; so that the shell-forger would be "blanked off" by the machinist so many weeks earlier than the full limit of his three months' notice. But the shell-forger, to ensure his forging presses being kept supplied with billets and to guard against delays, carried a reserve stock of billets, say a four weeks' supply, besides which he would always have about a week's output of forgings "waiting results to test." He would therefore have to "blank off" the steel-maker about five weeks before the machinists' clearing-up period would begin. The same reasoning would apply to the makers of copper bands and other components. In the case of their own factories, Messrs. Firth calculated that in order to have all the shell finished when the three months' notice expired, the shell-forger could only be allowed to work for the first five or six weeks of that period, and the steel-maker for no part of it at all.

Another difficulty, of which Messrs. Vickers complained, was to arrange for a supply of fuzes under a three months' contract, because the sub-contractors for parts of fuzes had to be given a longer period.

After the institution of the Standard Break Clause, a special clause for shell contracts was agreed upon with the armament firms. This clause allowed the contractor "to complete the manufacture of the shells in actual process of manufacture at his works on the date of the notice, up to a number equal to eight weeks' production at the weekly rate herein specified." If the War terminated before the end of the eight weeks occupied by delivery at the specified rate, the contractor was to be allowed to spread the deliveries over a period of six months from the date of the notice. The clause further guaranteed the

¹ Contract No. 94/S./226, dated 6 September, 1915, for 300,000 shells, terminable on 31 May, 1916.

reimbursement of the time wages, for a short period, of workers for whom employment could not be found.¹

(3) *Guns*.—A special clause for Gun and Howitzer equipments was settled towards the end of 1917. It was devised so as to secure that, so far as possible, the various parts of a gun should not be left to be taken over by the Government in an unfinished state.²

(c) MOTOR LORRIES AND CARS.

When these supplies were dealt with by the War Office, the contracts included a Break Clause covering a period of six months. In 1917 this clause was modified by the Ministry after discussion with the trade. The Ministry undertook to accept eight weeks' production based on the weekly deliveries for the preceding four weeks, such vehicles to be delivered over a period of six months.

At the end of the War, the Break Clauses in these contracts actually varied from six weeks' production of completed vehicles (in one case only) to three months' production of completed vehicles plus seven months provision of raw material.³

(d) AIRCRAFT.

At a meeting of the Joint Committee of Contracts and Finance Officers on 13 July, 1917, it was stated that in contracts for aircraft no Break Clause had yet been introduced. It was considered that the time had come to insert one.

Negotiations followed in the latter part of 1917. The manufacturers' Society proposed to substitute six months for the 14 days' notice in the Standard Break Clause. On 6 October, 1917, the Department stated that they were prepared to recommend this extension, and that the contractor should have the option of extending the time of delivery for a period not exceeding six months, such delivery being restricted in quantity so as to be equivalent to the output of the six weeks immediately preceding the date of notice.

Under Clause 6 (c) the Society had proposed that material should be taken over at cost price plus 10 per cent. The Department offered to recommend an addition of $2\frac{1}{2}$ per cent. to cover handling and other charges, and to agree that material should be taken over only if the Contractor so required.

Under Clause 6 (e) the Society had proposed that articles in course of manufacture should be taken over at cost plus 15 per cent. (instead of 5 per cent. as in the standard form). The Department declined to differentiate in this way between Aeronautical and other contracts. They promised favourable consideration to a clause, proposed by the Society, providing for arbitration.

¹ See Appendix XI.

² See Appendix XII.

³ *Council Committee on Demobilisation and Reconstruction*. Serial No. 186. HIST. REC./R./500/22.

With regard to indemnity for capital outlay, the Department was prepared to suggest to the Treasury that, where through the operation of the Break Clause the contractor was unable to recover the amount by which such expenditure had been authorised to be written down, a guarantee should be given to the contractor that he should not be placed in a worse position as regards the amount authorised to be written down than he would have been if the Break Clause had not operated.

This policy was subsequently adopted and the contractor was entitled to recover the amount of the difference from the Ministry.

The Department promised to consider favourably the payment of not more than one week's wages to employees for whom work could not immediately be found, owing to the operation of the Break Clause.¹

An agreement was finally reached with the Society of British Aircraft Contractors whereby, in lieu of the 14 days' notice under the standard War Break Clause, the Minister agreed to accept:—

(a) Four months' contract output extended over six months for all Aircraft engine builders.

(b) Three months' contract output extended over six months for contractors who were solely Aircraft contractors ;

(c) Two months' output extended over six months for firms who had taken over Aircraft work, but had other work.²

(e) ASSISTED CONTRACTS.

A form of Break Clause was inserted in the standard form for assisted contracts (M.C.2)³. This clause was very seldom accepted by contractors as it stood. The terms were not very favourable to the Ministry.⁴

In Appendix XIV certain special variants are given, which were sometimes, but not frequently, used where capital expenditure had been incurred by the contractor.

In a Minute of 23 October, 1917, the Controller of Munitions Contracts wrote:—

“ In all cases of extensions of works required for increasing production of munitions, I think we should endeavour to insert the Break Clause. I am aware that in certain extensions, such as steel and iron, the product will be of immense importance after the War, and we decided some time ago, in view of this, in such cases not to press for a construction Break Clause. But in products of a purely temporary and war character, such as poison gas, aircraft, etc., some form of Break Clause should be inserted.”⁵

¹ P.M./Gen./1220.

² *Council Committee on Demobilisation and Reconstruction*. Serial No. 104. HIST. REC./R./500/22. The Clause in its final form is given in Appendix XIII.

³ See Appendix XIV.

⁴ 94/Gen./597.

⁵ P.M./Gen./997.

In September, 1918, at the Financial Secretary's Standing Committee,¹ the Controller of Munitions Contracts explained that in certain negotiations for contracts for extensions, the normal practice of inserting a Break Clause had been departed from. Many contracts for steel works extensions had no Break Clause. Some contractors were now refusing to proceed if Break Clauses were insisted upon. In discussion it appeared that the insertion of such clauses in construction and extension contracts generally might entail a considerably enhanced price, and might be inadvisable. It was agreed that, in general, an effort should be made to insert a Break Clause; but, if a heavy price were demanded in consequence, it was preferable to rely on the power to terminate the contract on payment of damages at Common Law. The question of a Break Clause in construction contracts was to be referred to the Colwyn Committee, which had not dealt with this point in its First Report, of August, 1918, on Contracts for Building Construction Work.

IV. Definition of the "Termination of the War."

The standard form M.C.1 empowers the Minister to terminate his liability under the contract

"if the present war shall terminate or if the Minister shall be of opinion that the war is likely to terminate shortly."

This wording was adopted as the best that could be devised in the circumstances. It was considered that it would be too drastic to take power to terminate the contract without any reference to the War, though clauses in such a form had been used, for instance, in some of the earlier Board of Management contracts and in the clause used for Gun contracts.² The clause was not considered by the Cabinet before being adopted and it does not appear on the papers that it was put before the Minister.

On 10 January, 1917, Sir W. Grahame Greene (Admiralty) wrote to Sir F. Black that the Admiralty Contract department had been considering the question of applying to Navy contracts the Break Clause in use at the Ministry. An objection had been raised to the phrase "if the Minister is of opinion that the War is likely to terminate shortly." If any Department wrote such a letter to a contractor, it might let the whole world know that peace negotiations were actually decided upon.

At a conference on 11 January, 1917, between Sir F. Hopwood, Mr. Baddeley, and Mr. Oliver of the Admiralty, and Mr. Mann and Mr. Hanson of the Ministry, it was agreed that a submission to the Cabinet should be drafted, setting forth the facts as to the Break Clause used

¹ Minutes of 11 September, 1918.

² P.M./Gen./597.

by the Ministry. Several alternatives were suggested to the phrases objected to, viz. :—

(1) To leave the phrase substantially as it stood on the chance that it might be practicable to employ it before the actual termination of the War, without injury to the military situation.

(2) To omit the phrase entirely, so that the Break Clause could be employed only when the War had actually terminated.

(3) To use some more general phrase, giving a more absolute power to terminate without cause shown, *e.g.*, "or if, in the opinion of the Admiralty the circumstances of the moment, (from a military point of view) make it necessary to vary the contract." The objection felt to this course was that contractors might raise their terms or refuse to enter into a contract.

A Joint Submission to the Cabinet by the Admiralty and the Ministry was accordingly drafted. It was pointed out that the phrase "if the present war shall terminate" was too vague. Termination might be by the conclusion of a treaty of peace, by simple cessation of hostilities, or by conquest. It was necessary to consider only the first contingency, as being the one most likely to happen and also the only one giving an exact date. A treaty of peace might be "in the form of a definitive treaty or of preliminaries of peace"; the latter are "an agreement intended to put an end to hostilities at an earlier moment than that at which the terms of a definitive treaty can be settled." In either form the treaty would take effect from the date of signature. Further, there must be a ratification of the treaty. This gave a third date.

It was suggested that there should be added some such words as "the date thereof to be taken as being the date of the signing of the preliminaries of peace" (*i.e.*, the earliest of the three dates), or "the date thereof to be fixed by Act of Parliament."

With regard to the second phrase, "if the Minister (or the Admiralty) shall be of opinion that the war is likely to terminate shortly," the three alternative suggestions made at the conference were submitted.

It was added that the Ministry considered that the objections raised did not invalidate the clause as used in their contracts, because the expression "if the present war shall terminate" enabled every contractor to understand that the end of the war might bring about a termination of his contract, and the indefiniteness of the second proviso enabled the Government to stop supplies, if the War had actually, though not legally, terminated, or if the Cabinet, on a review of the whole position, thought it safe to stop.

This joint submission was approved by the Minister on 12 February, 1917. Before action was taken, however, the Board of Admiralty, with the sanction of the Treasury, approved the form of Break Clause containing the same terms as those of the Ministry form.

The question was referred to Mr. Justice Atkin's Committee, which reported that,

"speaking generally, the war cannot be said to end until peace is finally and irrevocably obtained; and that point of time cannot be earlier than the date when the treaty of peace is finally binding on the respective belligerent parties, and that is the date when ratifications are exchanged."

The Committee appeared to consider that the "duration of the War" could not be prolonged after exchange of ratifications by delay in issue of a Royal Proclamation declaring war at an end.¹

V. Classification of Contracts with a view to Application of the Break Clause.

On 11 July, 1917, Mr. John Mann suggested to the Director-General of Munitions Contracts (Mr. Hanson) that contracts might be tabulated in such a way as to show the type of Break Clause, in order that prompt action might be taken when occasion should arise.² Mr. Hanson pointed out in reply that, with the exception of guns and a few special cases, the Break Clauses were all of one type for any given class of articles. Much more would be necessary than mere tabulation. In each case, the Break Clause provided for alternative courses open to the Ministry, and a decision would have to be taken, which course, if either, was to be adopted. There was also the difficult prior question of policy, whether the strict terms were to be put in force at all. This should, if possible, be decided in advance. Representatives of the Contracts department consulted the Labour department and also Mr. Ashley of the Board of Trade, who said that, while the Board were most anxious to co-operate with the Ministry, he was under the impression that the Ministry had undertaken the reconstruction of the engineering trade.

In October, 1917, Mr. John Mann having become Controller of Munitions Contracts, the matter was brought forward again. Attempts had been made meanwhile to classify the contracts in groups, with a view to the question whether the termination clauses should be altered, especially in the case of running contracts.

In November, Mr. Burrage of the Contracts department drafted a memorandum on machinery for stopping contracts on the declaration of peace. The contracts which could be terminated fell into the following groups:—

A. Contracts which were in arrear and could be terminated at once under the penalty clause.

B. Running contracts subject to less than three months' notice. These could not be stopped under the ordinary War Break Clause, but could be terminated by ordinary notice.

¹ *War Office Emergency Legislation Committee Report II.* 25 April, 1918.

² P.M./Gen./997.

C. Contracts for fixed quantities not due for completion until three months or more after the date of the contract. These were subject to notice under the War Break Clause.

D. Running contracts subject to three months' notice or more. These also were subject to notice under the War Break Clause.

E. Contracts subject to special War Break Clauses.

F. Contracts in process of negotiation at the date when it should be decided to give notice to stop.

The Contracts department alone would not be able to decide which contracts could be terminated under A, since the arrears would frequently not be due to the contractor's fault. It would probably be economical to ignore the Ministry's powers under A. It was proposed that contracts under B to E should be classified by means of a card index. The cards could be handed for action to the appropriate Contracts section. Each branch would have a record of Contracts under F, and must be left to treat them on their individual merits.

Further, the contracts should be grouped according to the action to be taken when it should be decided to use the Break Clause, as follows :—

(i) Contracts which will be completed irrespective of the date on which the War ends.

(ii) Contracts on which the contractor will be instructed to complete all articles in course of manufacture at the expiration of the notice (para. (a) of Break Clause).

(iii) Contracts on which the contractor will be instructed to cease manufacture wholly, or

(iv) partially, of articles in course of manufacture (para. (b) of Break Clause).

These arrangements were carried out, and on 17 April, 1918, it was reported that the card index was completed up to date. It did not cover contracts placed by the Explosives department, the Trench Warfare Supply department, or the Aircraft Contracts branch.

A form of notice was drafted, which could be used to put the Clause into operation, as follows :—

“ Notice under War Break Clause.

“ I am directed to give you notice on behalf of the Minister to terminate his liability under the above-mentioned contract under the terms of the War Break Clause contained therein.”

This form, unaccompanied by instructions under sub-clauses (a) and (b) of the Break Clause, would be equivalent to a direction to cease manufacture at the expiration of the period of notice.

VI. Report of the Financial Advisory Committee.

The question of Break Clauses was raised at a meeting between the Executive Committee of the Council of the Associations of Controlled Firms and representatives of the Ministry on 6 September, 1917.

Mr. W. L. Hitchens urged that the whole question should be considered from the standpoint of the Ministry of Reconstruction. An interim period should be fixed for turning over to peace work at the end of the War. During this period there would be a considerable amount of unemployment; and the employer should be guaranteed his charges and his profit, while the workman should be guaranteed a certain rate of pay. The production of useless munitions should be stopped at once and the materials saved and diverted to other purposes. It would be better to pay employers and workmen for doing nothing than for useless work. Mr. Hitchens considered that the manufacture even of guns and other articles which take a long time to make should be stopped as soon as war ended, instead of fixing terms of notice of various lengths for makers of different classes of war material. He represented that a fortnight was an impossibly short period for the transition; twenty-eight days might be reasonable.

The Finance Member of Council, who was in the Chair, expressed agreement with Mr. Hitchens' view, and on 14 September, he requested the Financial Advisory Committee

"to consider and report on the forms of Break Clause now in general use in Ministry Contracts, and whether, and (if so) what alterations should be made therein, having regard to the financial interests, both direct and indirect, of the State, the contractors, and the workmen; and the policy to be adopted (a) in bringing such clauses into operation, and (b) in cases where no Break Clause exists."

The considered views of the Central Council of Associations of Controlled Firms were put forward in a Report to the Financial Advisory Committee on 6 December, 1917. Among other proposals relating to the transition period, the Report recommended that it should be laid down that the following provisions would be observed in respect to the cancellation of contracts:—

"(a) For all work performed on any contract up to the date of cancellation, the full proportion of the contract price should be paid.

"(b) Where a contract was on a percentage basis, or where, although the contract was at a fixed price, the Government desired to pay on a percentage basis at the termination of the contract, the percentage for establishment charges and profits should be, in the former event, that originally agreed upon, and in the latter, the percentage included by firms in their contract price.

"(c) All stocks of raw material bought against contracts but not utilised should be paid for at cost plus percentage to cover handling, storage, establishment charges, etc.; or, if

by agreement left with the contractor, should be written down to the market value, if values have fallen. Similarly all expenditure on patterns, jigs, gauges, and accessories should be re-imbursed.

“(d) Contractors should be indemnified against claims of sub-contractors, where the sub-contracts contain Break Clauses similar to those of the main contracts. A similar indemnity should be given in respect of contracts for war material and plant entered into directly between one firm and another.

“(e) In the case of any composite manufacture, component parts already manufactured should be paid for on the same basis as component parts manufactured and matched.

“(f) Where authorisation exists to write down capital expenditure out of the proceeds of a contract, a guarantee should be given that in such cases firms will not be placed in a worse position as regards the re-imburement of the amount to be written down than they would have been in if the contract had not included a Break Clause.”

The length of the notice to be given should be dealt with on the merits of each individual case. The period of fourteen days included in certain Break Clauses, was, generally speaking, altogether inadequate.

The Secretary to the Committee, Mr. Ilsley, drew up a memorandum on the relation of the Break Clause to the demobilisation of industry. He pointed out that, if effect were given to a short-term Break Clause, industry would be left unorganised for the resumption of its normal activities. To meet the difficulty he put forward alternative proposals.

(1) The first was that the period of notice should be extended from fourteen days to four weeks, and that the manufacturer should be allowed to make the equivalent of four weeks' output and spread the deliveries over a period of twelve weeks or more. He would then be able to eke out his quantity and use it as a bridge to the resumption of normal work. The State would not have to take more goods than it would under the strict time limit; and the Ministry would not have to take over material or goods in course of manufacture.

This plan would specially meet the case of contractors who were supplying goods other than those they normally manufactured.

(2) Suppose the case of a manufacturer of motor cars, who was at present making shells. It was proposed that, instead of allowing him to continue making shells for four weeks, the Ministry should guarantee him in respect of the manufacture of motor cars to the same value, extending to him the same “clearing up” options, as might be deemed advisable. When the total number of cars was sold, the guarantee would lapse automatically. To tide him over the period of turning over to normal operations, it was suggested that he should be paid a lump sum equivalent to his wages bill at ten hours a day and his standing charges for the period.

Since the contractors who supplied him with components would be in the same position, and they in turn would be dependent on further contractors down to the producers of raw material, it would be necessary to arrange trades in a graduated scale, allowing the producers of the most complicated articles the longest period for setting their business on a normal footing. An objection to the present Break Clause was that it observed no distinctions of this sort, and was applied equally to manufacturers who were continuing their normal work during the War and to those who had turned over to different work and would have to turn back again.

On 24 October, Mr. Seager Berry gave evidence with regard to controlled establishments, which he estimated to cover at least 75 per cent. of the manufacturers of the country engaged on war work.¹ It was only in connection with extensions of buildings and plant that the Controlled Establishments division had had occasion to consider Break Clauses. Mr. Berry put in a list, made up to 30 June, 1917, of controlled owners who had made extensions to their works by arrangement with the Controlled Establishments division. The list showed the following approximate position :—

<i>Number of Firms.</i>				<i>Approx. percentage of whole. Per cent.</i>
92	engaged on same work as pre-war	..	..	25
88	„ „ similar work to pre-war	..	..	25
45	„ „ partly on pre-war, partly on different work	..	..	15
125	„ „ different work to pre-war	..	..	35
<hr/> 350				<hr/> 100

He thought that there would be no advantage in applying a Break Clause to establishments which had no grant or guarantee or agreement as to writing-off allowance, and were merely waiting to have their writing-off settled at the post-war date. If the owner, in such a case, proceeded after the War to complete extensions, it would point to their having a considerable post-war value, which would be reflected in a small writing-off allowance.

The cases where a writing-off allowance had been agreed would be few, since the Board of Inland Revenue had not adopted the practice, but future cases were being dealt with by the Ministry by grant or guarantee. The question that remained was how far a Break Clause was desirable, and what form it should take, if inserted in cases where a grant or guarantee had been given.

Clauses “ G ” and “ H ”² were objectionable in that both required the owner automatically to stop extensions, and provided for arbitration, failing agreement with the Minister whether the work should be

¹ On 9 November, 1917, there were 5,005 Controlled Establishments in the hands of 3,625 private owners, apart from Government Factories.

² See Appendix XV.

proceeded with or not, and on what terms. This involved a sudden dislocation of labour ; the immediate cessation of delivery of material ; and the possible resumption after terms had been agreed or settled by arbitration. Or, if the work were finally discontinued, the Ministry would have to pay the owner's expenses and compensation to his contractors. The dislocation of labour would be very serious, and the uncertainty whether the work would proceed or not would give rise to high claims on the part of the contractor.

Mr. Berry thought that, if a Break Clause were adopted, it should provide for extensions proceeding till required by the Ministry to stop, and if orders to stop were given, the Minister should undertake to pay, not any damages incurred in consequence, but "any actual amount the owner may have to pay to his contractors, or may suffer himself if he is making the extensions himself, in relation to the actual erection of the buildings or the provision and installation of plant, and any expenses he may have incurred for the purpose of putting himself into the position to work the extensions." There would often be sub-contracts for provision of materials, and possibly sub-sub-contracts.

The Ministry would then be in the safest possible position. They would confer with the owners concerned as to whether the work could be stopped and on what terms, and each case could be dealt with as seemed best in circumstances which could not now be foreseen. The delay and expense of arbitration should be avoided by referring questions for settlement to one or more persons nominated, on the Minister's application, by the President of the Surveyor's Institution or the President of the Institution of Civil Engineers. These gentlemen should settle the matter summarily without formal hearings.

The evidence given before the Committee was naturally not confined to the question of the proper form for Break Clauses, but ranged over the inseparable problems connected with the restoration of industry after the War. While the Financial Advisory Committee was still considering its reference, the Minister appointed in November a Standing Committee of the Council on Demobilisation and Reconstruction. The Financial Advisory Committee thought that the special question of Break Clauses should be dealt with as part of the whole policy of reconstruction. Accordingly, on 12 December, they resolved—

"to discontinue their deliberations on the operations of the Break Clause in Ministry contracts and to hand over to the Ministry Reconstruction Committee the evidence already taken, giving to that Committee all possible help."

This resolution was approved, but the Financial Advisory Committee was requested to furnish an Interim Report.

This Report (dated 30 January, 1918)¹ was confined to the broad principles involving important financial considerations which the

¹ M.F./Gen./1446.

Committee considered should be observed in the operation of the Break Clause. They made the following recommendations :—

“ 1. The Minister should limit his liability under the Break Clause as strictly as circumstances permit; but, once the responsibility of the State has been strictly safeguarded, the Minister should interpret the Clause in a liberal spirit, as the case of each contractor reasonably demands. So divergent are the circumstances of different branches of industry, and of individual cases, that the application of the terms of any Break Clause must be varied so as to apply to individual circumstances.

“ Full effect given to the strict letter of strictly drawn Break Clauses must seriously prejudice the interests of the State, the contractor, and the workmen by bringing about a general cessation of work and producing industrial chaos at a moment when steady factors will be of the highest importance.

“ 2. No material should be wasted by being employed in unneeded manufactures. All munitions work as such should cease at the earliest possible moment, and contractors should be encouraged to resume their normal occupations with a minimum of unemployment and dislocation.

“ 3. Generally speaking, buildings in course of erection should, if of suitable design, location, and of substantial use for commercial purposes, be completed.

“ 4. In the application of a Break Clause with a principal contractor, regard should be given to the application by the principal contractor of the Break Clauses in his contracts with sub-contractors.”

The above report was handed to the Demobilisation and Reconstruction Committee on 1 February, 1918.

VII. The Council Committee on Demobilisation and Reconstruction.

This Committee had issued, on 30 November, 1917, a circular enquiry to heads of Supply departments, asking what instructions should be issued to the factories and establishments under their control in the event of either an Armistice or Peace being declared. A discussion of the replies at a meeting on 2 January, 1918, showed that the recommendations of some of the departments could not be considered independently. It was arranged that Mr. Layton, in consultation with the Controllers of the Gun Ammunition and Gun Ammunition Filling departments and the Director of the Explosives Supply department should prepare a memorandum on the position with regard to the manufacture of munitions in the event of an Armistice being declared. This memorandum, by the Minister's instructions, was printed as a Cabinet paper. It was sent to the War Office on 15 January with a letter asking several specific questions on the conditions likely to prevail if peace negotiations should be

begun. The War Office replied on 12 February that the only condition to be provided for was that, during the Armistice, naval warfare would continue and the blockade would not be raised. The Council considered that, in the event of an Armistice, the manufacture of munitions of which the supply was adequate might safely be reduced, so far as was consistent with the possibility of restoring normal output within six weeks, if necessary.

On 6 February the Demobilisation Committee discussed the instructions to be issued to firms, if Peace were declared. It was agreed that, before deciding these instructions, information should be obtained from the Contracts department as to the length of the Break Clause and the approximate number of contracts of various classes with the several lengths of Break Clauses. It was also determined to interview the members of the Boards of Management Executive Committee, and later representatives of some of the larger firms.¹

On 14 February, 1918, the Controller of Contracts reported that practically the whole of the current contracts placed by the Contracts department contained the Break Clause in the General Conditions; but it was only effective in those contracts for which the period of supply exceeded three months. The numbers of such contracts, excluding explosives and aeronautical supplies, were as follows:—

<i>Period of Notice.</i>	<i>Number of contracts.</i>
7 days	20
14 days	41
3 weeks	1
4 weeks (or one month)	2,360
6 weeks	310
2 months	75
10 weeks	22
3 months	340
4 months	2
6 months	1

The policy of the Contracts department had been to limit liability under the Break Clause as strictly as possible, and to leave to others the interpretation of the Clause according to times and circumstances.²

The Explosives department reported that they had seven contracts for the duration of the War or for one or two months later. Other running contracts contained Break Clauses, grouped as follows:—

<i>Period of Notice.</i>	<i>Number of Contracts.</i>
14 days	8
1 month	6
2 months	47
3 months	16

There were also Cordite contracts which contained a Break Clause to the effect that the Minister could give notice at any time, but should take all materials in a state of semi-manufacture as at the date of notice, together with such materials as could be manufactured within a period of three months out of raw materials on hand or contracted for at the date of notice.²

¹ Papers of Council Committee on Demobilisation and Reconstruction.

² M.F./Gen./1446.

The meeting with the Executive Committee of Boards of Management was held on 19 February. Questions of employment after the termination of the War, out-of-work pay, priority in materials, etc., were discussed.

Among the recommendations made at this meeting were the following :—

(1) The problem should be divided under the two heads of (a) labour engaged upon its legitimate product (estimated by Mr. Mensforth at 65 per cent. of the whole), and (b) labour not so employed.

(2) Labour displaced by the operation of the Break Clause should be a charge upon industry, and should be dealt with on the lines adopted by the Cotton Control. The 14 days' clause was generally agreed to be inadequate.

(3) Useless production of munitions should cease immediately upon the termination of the War, even if this should mean paying labour for doing nothing.

(4) Priority for certain materials would be necessary, and municipal undertakings, railways, and other big buyers should at once place orders for materials.

(5) Manufacture of goods previously imported should be encouraged so as to employ displaced women workers.

VIII. Proposed non-War Break Clause.

At the Munitions Contracts Board, on 10 May, 1918, a discussion took place on the proposal to introduce a clause enabling the Department at discretion to terminate a contract before the end of the War with payment of compensation. A Committee was appointed to consider the co-ordination of the present forms of Break Clause; the introduction of the War Break Clause into contracts of less than three months' duration; the suggested introduction of a "non-War" Break Clause; and the principles of compensation for cancellation.

The Committee reported on 18 June as follows.

(1) Considering the difficulty of adjusting a Break Clause with contractors, the Committee thought it was not advisable to introduce a War Break Clause into contracts of less than three months' duration.

(2) The possibility of introducing a non-War Break Clause to meet the changes of requirements had been carefully considered. The conclusion was that all contracts of three months or more should include a general (not merely a War) Break Clause. Such a clause would strengthen the Department in all negotiations about changes of requirements or modifications of price.

Several forms, varying according to the work to be performed and on the whole offering more generous terms than the War Break Clause in the General Conditions (M.C. 1), had been in use for Gun Equipments, Wagons and Limbers, Forgings, and Machining. If the

War Break Clause in M.C. 1 were to be converted into a general Clause, it would be reasonable to make the terms more generous, and the Committee proposed changes of wording to provide for a differentiation in compensation according as the Clause were put into operation on account of the termination of the War, or otherwise. They also suggested modifications of the special Clauses in contracts for Gun Equipments and others above mentioned.

(3) Contractors had expressed dissatisfaction with Clause 5 (Damages for Delay) of M.C. 1. The Committee thought that this Clause should be expressly made subject to the recently inserted Clause 15 (Force majeure), and that this latter should be entitled: "Default for which contractor not responsible."

(4) The Committee considered that, though special modification would always be needed in certain cases, the General Conditions, if altered as they proposed, and the special forms already in use, should meet most cases likely to arise.

On 28 June the Munitions Contracts Board, after considerable discussion, was generally of opinion that it was not desirable at the moment to insert a non-War Break Clause in all contracts for over three months' duration. It was agreed that no general action should be taken, but that a non-War Break Clause similar to that used by the Directors of Projectile Contracts and of Gun Contracts should be used in special cases.

IX. Procedure Recommended for Termination on Cessation of Hostilities.

The Council Committee on Demobilisation appointed, on 10 July, 1918, a number of sub-committees to report on the procedure to be followed in terminating contracts for various classes of stores upon the cessation of hostilities. The principal recommendations of these sub-committees will be given.

(a) SHELL CONTRACTS.

The Sub-committee on the termination of Shell and Projectile contracts, in an Interim Report,¹ dated 20 August, recommended the insertion in all shell contracts of a modified War Break Clause.

The Sub-committee had considered the two alternative courses open to the Minister on the cessation of hostilities, on the assumption that all useless munitions production should cease at the earliest moment. The first alternative was to give notice to cease manufacture at once, without regard to the periods provided for in the existing Break Clauses, and to pay compensation. They rejected this course, because, the contractor having no previous notice of the Government's intention, considerable controversy would be involved and settlement would be delayed. The other alternative was to substitute a new

¹ *Council Committee on Demobilisation and Reconstruction. Serial No. 169.*
HIST. REC./R./500/22.

Break Clause in existing contracts, empowering the Minister to give instructions to cease manufacture at once, and providing a suitable and agreed method of compensation. The Sub-committee proposed a draft clause in this sense.

The clause empowered the Minister to terminate the contract by giving notice at any time,¹ and then to direct the contractor to cease manufacture either wholly or subject to the completion of articles in course of manufacture. The Minister was bound (as in the Standard Clause) to take over at cost price material and components and to indemnify the contractor against commitments reasonably and properly incurred. The new provisions were as follows :—

“ 3. (c) The Minister shall take over from the contractor all articles in course of manufacture at the date of the notice which the contractor shall not be directed to complete as aforesaid, and will pay for the same the cost incurred by the contractor *in accordance with the schedules attached hereto.*”

The Sub-committee proposed that Schedules of Operations should be prepared for the different natures of shell, the value of the materials being included in the appropriate operations. They would be based on the standard price current at the time of preparation. The compensation due to the contractor would be adjusted proportionately to the difference between the basis price and the contract price at the time when the assessment was made.

Further, a paragraph was added taking liability for wages in lieu of notice :—

“ 4. If the Minister gives notice in accordance with the clause he shall indemnify the contractor for the amount for which he is liable in respect of payment in lieu of notice of discharge due to employees who were engaged at the contractor's works on or in connection with the contract at the date of the notice.”

The Sub-committee asked for the approval of the main Committee before they proceeded to consider the details of organisation for inspection, assessment of compensation, etc.

The Director of Projectile Contracts pointed out to Sir P. Henriques that the new Clause would involve the payment of wages in lieu of notice to a very large number of workpeople. The attention of the Treasury was called to this point. The Treasury decided that they could do nothing further until they had the views of the Colwyn Committee.²

Mr. Piggott and Mr. Larke gave evidence before this Committee, and explained the proposed new Clause. On 12 October the Committee wrote that “ in view of the urgency of the matter, it would be expedient that the Ministry should at once introduce a new Break Clause ” on these lines “ in all future contracts for empty shells.”³ It will be

¹ Not “ fourteen days' notice ” as in the Standard Clause.

² *Minutes*, 17 and 20 September, 1918. *Council Committee on Demobilisation and Reconstruction*. Serial No. 190. HIST. REC./R./500/22.

³ *Council Committee on Demobilisation and Reconstruction*. Serial No. 207.

observed that this decision did not cover the substitution, as at first proposed, of the new clause in existing contracts. The Colwyn Committee had decided to confer with representatives of the Admiralty and War Office as well as of the Ministry.¹

On 25 October it was reported to the Contracts Board that the Munitions Emergency Standing Committee had approved the new form of Shell Break Clause providing for cessation of work at the Minister's request, subject to payment of the cost of work in progress, and the necessary wages of workpeople during the period of notice.² No compensation for loss of profit was included.³ The Director of Projectile Contracts pointed out that this clause could not be used until the general policy had been approved by the Munitions Council or by the War Cabinet.

On 21 October the Ministry wrote to the Treasury requesting sanction for the inclusion in future contracts for empty shell of the Break Clauses approved by the Colwyn Committee. The Treasury gave its sanction of 30 October.⁴

On 5 November, the Sub-committee on Shell Contracts presented a second Interim Report on the procedure to be followed in terminating contracts under the existing Break Clauses. As the clauses stood, it appeared that the assessment of payments due to contractors could only be done by conducting a cost audit in each works. In order to avoid the delay involved, the Sub-committee devised a procedure in the form of returns to be prepared by the contractor and certified by the Inspection department, and, where necessary, by the contractors' auditors. Claims were to be forwarded to the Controller of Munitions Accounts, who would distribute them to the departments for approval in whole or part before they could be paid.

An alternative method of compensation was proposed, which would reduce the production of useless munitions and nugatory expenditure. This was to allow the contractor a liberal percentage of profit on the uncompleted portion of the contract, reducing the percentage proportionately to the amount which he required the Minister to take over under the Break Clause. The sliding scale of compensation would induce the contractor to clear his contract and turn over to peace work, as well as give him a substantial sum in cash. The charge on public funds would undoubtedly be less than if the Break Clause were allowed to run its normal course.⁵

The Sub-committee recommended :—

“(1) That existing stocks in relation to prospective requirements be immediately examined and notice to terminate under the Break Clause be served, without waiting for the emergency to arise, in all cases where the stocks prove to be sufficient for any probable duration of the War, having regard to the productive capacity of National Factories.

¹ Munitions Contracts Board, Minute 607, 11 October, 1918.

² *Ibid.*, Minute 632.

³ *Ibid.*, Minute 641.

⁴ M.F./Gen./1662. Treasury letter 40463/18.

⁵ The Munitions Contracts Board had expressed its preference for this alternative. Minute of 1 November, 1918.

“(2) For shell contracts, that on the cessation of hostilities notice be given immediately to terminate under the existing Break Clauses; that with the notice terminating contracts be enclosed copies of appropriate forms of claims for payment, and that the contractor be given the alternative of settling his contract under the proposals outlined above.

“(3) For shell parts, that the contractor be given notice to terminate under the terms of his contract, the Minister accepting completed components only.” The contractor was to be given an option of two alternative methods of settlement.

(b) ORDNANCE CONTRACTS.

The Sub-committee on Ordnance Contracts reported on 8 November. Their recommendations followed the same general lines as those of the Shell Sub-committee. Contractors were to be offered the opportunity of compromising their contracts under the sliding scale of compensation. Special provisions were added for forging and machining contracts. It was recommended that wagons and horse-drawn vehicles which were half, or more than half, completed, should be finished and taken over; others should be broken down and the parts taken over as spares.

(c) EXPLOSIVES CONTRACTS.

Nearly three-quarters of the finished explosives were produced at National Factories. The Sub-committee on Explosives recommended the adoption of a new Break Clause with a term of notice not exceeding one month. The materials they divided into two classes, according as they were or were not likely to be readily saleable on the cessation of hostilities. For the former class, the transition to peace conditions would involve merely the diversion of the materials to industrial uses. For the “non-commercial” class, it was considered that compensation could be negotiated without difficulty if the contracts were terminated immediately.¹

(d) CONTRACTS FOR MECHANICAL TRANSPORT VEHICLES.

Mechanical Transport Vehicles were not made at any National Factory. There were some twenty-five contractors, twenty-one producing motor lorries and four producing cars of various types. These firms employed about 3,700 sub-contractors. Since most of the products could be turned to civilian purposes, the Sub-committee on these contracts recommended that, with a few exceptions, the Break Clauses should be allowed to run their normal course. In many cases, however, contractors might be glad to be relieved of their obligations. It was recommended that this should be authorised where no repayment to the contractor would be involved.²

¹ Council Committee on Demobilisation and Reconstruction. Serial No. 199. HIST. REC./R./500/22.

² Council Committee on Demobilisation and Reconstruction. Serial No. 225. (24 October, 1918.)

(e) CONTRACTS FOR AMMUNITION BOXES.

The great majority of the contractors for wooden boxes had been wood-workers before the War and had not altered their machinery, except for extensions. They would have no difficulty in turning over to peace products, if they were allowed to secure orders and material. It was recommended that on the cessation of hostilities all contractors (308 making boxes, and 146 making tin cylinders and linings) should be instructed to cease production and not to complete work in progress. In order to conserve raw materials and reinstate industry, it was considered that all contracts for boxes, except where required for storage, should be cancelled without regard to Break Clauses, compensation being paid.¹

X. Policy in the Last Weeks before the Armistice.

On 18 October, 1918, when the cessation of hostilities appeared to be in sight, several members of the Munitions Contracts Board pointed out that the Contracts department had received no guidance as to the instructions to be given to contractors for closing down contracts. It was agreed to call the attention of the Secretary to the imperative need for some statement whether it was desired (1) that notice should be given under the existing Break Clauses (which would not involve the immediate suspension of work), or (2) that contracts should be suspended immediately.²

On 25 October, the Munitions Contracts Board were informed that the Contracts department had prepared the card index of contracts nominally current which contained a Break Clause, classified according to the terms of the War Break Clause. The record did not include short-period contracts without a Break Clause or contracts which were still running after the time for delivery fixed in the contract. Directions were given for the distribution of the index among the Contracts branches. A list of contracts in which the period of notice was more than three months was to be sent by each Contracts branch to the Supply branch with an inquiry whether any anticipatory action should be taken. These records were to be kept up to date by Contracts branches and to include all current contracts with a Break Clause.

On the same day the Board reviewed the following forms : (1) a telegram giving notice to terminate under the Break Clause ; (2) the form of notice itself (M.C. 121) ; (3) a form (M.C. 122), giving notice that no deliveries would be accepted after (such and such a period) from the date of the letter, and enquiring to what extent delivery could be reduced during the period of notice. These forms were referred to the legal advisers for revision. The revised forms were approved by the Board and sent to Sir James Stevenson on 9 November.

At the meeting on 25 October, a draft report from the Finance Sub-committee on Demobilisation was read. The Report³ stated

¹ *Council Committee on Demobilisation and Reconstruction*. Serial No. 187. (16 September, 1918.)

² Minute 624, 18 October, 1918.

³ *Committee on Reconstruction Finance*, No. 53c.

that Sir Gilbert Garnsey had been informed by the Minister at a Council Meeting that all contracts were to be stopped absolutely at a certain date to be fixed with possible exceptions. The Committee accepted this assumption and asked for a statement of exceptions. They emphasised that any change in this assumption would vitally affect their plans, and asked for a written instruction to act upon it by sending out a circular letter to contractors.¹ They recommended that there should be a Ministry Council for liquidation, of which one member should represent the liquidation of contracts. He would be supported by a small executive committee in permanent session. It was proposed to apply to the Treasury for plenary powers to effect settlements.

The policy of this Report was approved by the Contracts Board, subject to two amendments. (1) Attention was called to the need of ensuring that payments by the Ministry in respect of wages in lieu of notice should not overlap any general arrangements for compensation during the period of labour dislocation. (2) In the proposed letter warning contractors that they might receive instructions to cease production at once and that they would get "reasonable compensation, including wages in lieu of notice," it was agreed to substitute "*reasonable and proper* compensation."

At a meeting of the Finance Committee on 30 October, the Chairman reported that he and Mr. Dannreuther had visited the Treasury. They had been told that the Treasury, as at present advised, were not willing to sanction any proposals for financing contractors during the transition to peace conditions, *i.e.*, no advances in cash were to be made to contractors. The Ministry, however, was not to be harsh in collecting debts at the end of hostilities. The Treasury proposed that all nett amounts due to the Ministry and outstanding at a certain date should be converted into loans at interest, and security should be obtained. It would be necessary to pay forthwith any ascertained liabilities, but deductions from bills should continue on normal lines. In liquidating contractors' accounts, it would be necessary carefully to consider each case on its merits, while applying the above rules in a general way.

The question was raised whether contractors should at once be informed that most contracts would probably be terminated abruptly at the cessation of hostilities, and that advances by the Ministry on deliveries must cease simultaneously. The Secretary recommended delay for perhaps a fortnight. The Controller of Contracts pressed for consultation with leading firms, perhaps with the Federation of British Industries. It was agreed, however, that since the Demobilisation and Reconstruction Committee were considering the policy to be followed, the Finance Committee could do no more at this stage. On 4 November, the Finance Committee sent a further Report to the Demobilisation Committee.

The Munitions Contracts Board, on 1 November, were informed by the Controller of Contracts that the general policy of termination

¹ See copy of this letter in Appendix XVI.

had not been decided upon either by the Minister or by the War Cabinet. At some stage, however, an abrupt termination of some contracts would probably be necessary, and the Contracts department must be prepared with the requisite forms and machinery. Mr. Maslin reported that the Iron, Steel, and Spelter works due for completion by March, 1919 (with two exceptions), were to be completed, and four other such undertakings due at a later date. The Board passed the following resolution :—

“ That the members of the Contracts Board could accept no responsibility for the liquidation of contracts unless a decision on policy was reached and announced forthwith.”¹

The opinion of four legal advisers was taken on the legal effect of ignoring the Break Clause and abruptly terminating contracts. Their advice was that the least complicated and costly procedure would be to give notice under the Break Clause with a request to terminate production earlier if possible.

In a letter of 4 November to Sir James Stevenson, the Controller of Contracts expressed the alarm felt by the Contracts Board at the delay in defining a policy for slowing down and stopping munitions production, and referred to the Board's resolution disclaiming responsibility for the confusion that would be caused if instructions had to be issued without preparation. He repeated the suggestion he had previously made, that the Federation of British Industries, “ the most representative body of contractors available,” should be invited to appoint a very small committee to confer confidentially with Sir James Stevenson both on the alternative policies and on the methods of carrying them out. The Executive Committee of the Boards of Management, with which a conference had been held, did not represent the majority of contractors, whose co-operation could only be secured by previous discussion.

The Finance Committee, on 6 November, agreed that contractors ought to be informed at once of the Ministry's general policy, but this could not be done until the policy was settled. Meanwhile, there was no objection to notices being sent to contractors, with a view to the clearance of Advice Notes. The Controller of Commercial Finance might interview firms and obtain estimates of unbilled and uninspected goods, so as to facilitate the payment of the Ministry's liabilities.

The Secretary to the Ministry had arranged for the drafting of a letter to the Treasury on matters submitted to the War Cabinet, including questions of finance which required consultation with the Treasury. He observed that an understanding with the Treasury must be reached before the Ministry could settle its financial policy. The sudden discharge of munitions workers must be prevented.

The Committee were informed that the Minister had that day appointed a Demobilisation Board to anticipate the action that would

¹. Minute No. 644.

have to be taken when peace was assured. The following gentlemen were given "acting" appointments, retaining their existing positions for the time :—

Chairman	.. ..	Sir James Stevenson.
Secretariat	.. ..	Mr. H. H. Piggott.
Labour	.. ..	Sir Stephenson Kent.
Liquidation of Contracts—		
Aircraft and Engines	.. ..	Sir Arthur Duckham.
All other contracts	.. ..	Sir Gilbert Garnsey.
Disposal and Sale of Stores	.. ..	Mr. Alexander Walker.
Disposal of Factories, etc.	.. ..	Sir Keith Price.
Military Services	.. ..	Maj.-Gen. the Hon. Sir F. Bingham.

Their spheres of business were to be organised, like the Munitions Council, in groups of departments and were to come into being and co-exist side by side with the present Supply organisation. The existing Reconstruction and Demobilisation Committee was merged in the Board. The Secretary of the Ministry, the Assistant Secretary, and the Chairman of the Finance Committee were made *ex-officio* members. A representative of the Finance Group was to be attached to each member. Heads of departments would be instructed that all papers on demobilisation and reconstruction questions were to be marked to the Chairman of the Board through their Council Member. The Chairman would refer such papers as necessary to the Member of the Board concerned for consideration and report.

The Secretary to the Ministry explained that executive action would at present continue through the existing organisation of the Ministry, until the Demobilisation Board should become finally established in place of the Munitions Council.

XI.—The Liquidation of Contracts.

After the declaration of the Armistice, the Ministry wrote to the Treasury on 14 November¹ requesting formal sanction for a proposal which had been discussed by Sir John Bradbury and the Minister's financial advisers. The most urgent work devolving on the Ministry was the liquidation of contracts, including cancellation under ordinary or special War Break Clauses, or by special notice not provided for in contract conditions, with consequent assessment of compensations. The settlements would at the same time involve adjustments of Ministry claims on contractors for outstanding loans and advances, whether in cash or in materials, and wherever possible the sale to contractors on the spot of any scrap or materials lying at their works which the contractor might be willing to buy for cash or on reasonable credit. The contracts to be liquidated had been divided into two main groups, each under a Member of the Demobilisation Board assisted by a representative of the Finance department. Since it was impossible to submit every case to the Treasury, the Minister suggested that the Treasury should delegate to him full power to effect settlements.

¹ M./Demob./167.

The Treasury replied on 19 November,¹ according the power requested, subject to the following general conditions :—

“(1) That, regard being had to the adjustments mentioned” in the Ministry’s letter “the maximum amount payable in each case will not exceed the amount which would have been payable if the contract had been allowed to expire in ordinary course.

“(2) That the settlement will in each case be subject to the concurrence of the Minister’s financial advisers responsible to him through the Financial Secretary who will be answerable under the Minister to Parliament.

“(3) That in case of cancellation otherwise than as provided in the contract terms the rate of profit allowed in the assessment of compensation will not as a rule exceed the rate provided in the usual Break Clauses.”

The Treasury were to be consulted if any important question of principle should arise. They requested to be informed of the Minister’s policy with regard to the termination of contracts for supplies no longer needed for war purposes. “Even if termination involves the sacrifice of expenditure already incurred, it may well be more in the public interest, on general economic, as well as on financial grounds, to avoid further expenditure of money and the use of labour and materials which will ultimately be urgently needed elsewhere, than to complete munitions of war which are no longer required.”

On 20 November the Finance Committee were informed that the Minister had given clear instructions that, where notices to terminate contracts were given, this was to be done under the ordinary clause providing for notice, wherever such a clause was included in the contract, and not under the War Break Clause for the present. The Demobilisation Board were putting the Labour question in the forefront. The broad principle was to cancel contracts drastically where no serious dislocation of labour would be entailed.

Instructions for the liquidation of Board of Management contracts were issued in a letter to Boards of Management dated 28 November.² If a contractor would cease production and turn immediately to peace work with the minimum of labour dislocation, employees being released only after consultation with the local Labour Exchange, his contract might be liquidated on the following terms. (a) Shell or components delivered from the date of service of the notice to terminate until the date of the Board’s negotiations would be paid for at the ordinary contract price. (b) In return for a complete discharge of all Ministry liabilities in regard to the balance of stores that could normally have been delivered during the legal period of notice, the Ministry would delegate to the Boards the power to negotiate payment of a substantial portion of the contract value of such stores. Further instructions were given, relating to the disposal of raw material, claims for compensation, etc.

¹ No. 43716/18.

² D.A.O./Boards/224.

The further history of the liquidation of contracts cannot be pursued here, since it merges in the general history of reconstruction. It may be mentioned in conclusion that the result of the Ministry's policy was that liquidation was carried out rapidly. On 21 January the progress made was reported to the Treasury.¹ On 11 November there had been 21,698 outstanding contracts or commitments, other than those for aircraft, explosives, and chemical supplies. Of these more than 80 per cent. had been dealt with by notice to terminate, and since the beginning of the year notice had been given on a number of the remaining 4,261 contracts. Considerable savings had been effected by negotiations and settlements with firms. The longer period of notice customary in contracts for aeroplanes, seaplanes, and engines militated against speedy liquidation; but arrangements had been arrived at for the majority of these contracts. The liquidation of contracts for explosives, propellants, and chemical supplies was proceeding satisfactorily.

¹ M./Demob./167.

CHAPTER V.

CENTRAL PURCHASE.

I. Introductory.

The Ministry of Munitions was in its origin and conception a Ministry of Supply, placing contracts on demands presented by another Department. At first it served only the War Office, and it was not intended that the Ministry of Munitions should outlast the War by a longer period than should be necessary to wind up its business. Apart from the Civil Servants temporarily borrowed from other Offices, all its appointments were on an unestablished and non-pensionable footing. It was contemplated that the Ministry should be dissolved, and its functions transferred back to the War Office.

This conception of the Ministry's future may be said to have prevailed during at least the first two years of its existence, though the possibility that it would develop into a permanent Ministry of Supply was beginning to grow upon the minds of some of the officials. As time went on, the activities of the Department spread to include the warlike supplies required by other Departments than the War Office, such as the new Air Ministry. At the same time the need to avoid overlapping and competition by some system of central purchase was brought home more and more as the scarcity of manufacturing capacity, labour, and materials increased. By the end of 1918 it had become obvious that a Ministry of Supply serving all the other spending Departments was the natural outcome, though to have established it with logical completeness during the War would have involved too great a dislocation of current work.

The present chapter will be confined to the measures taken from time to time to introduce some co-operation between the Departments concerned in placing contracts for munitions of war.

II. Allotment of Manufacturing Capacity between the Admiralty and the Ministry.

In 1915-16 some steps were taken towards co-operation with the Admiralty in placing shell orders. This was the point at which overlapping was most likely to occur, since the two Departments were dealing to a large extent with the same firms. At an inter-departmental conference on 1 January, 1916, the Admiralty representative agreed to consider putting into Admiralty contracts a clause to the effect that no plant which had at any time within the last six months been used for Ministry orders should be used for Admiralty orders without special permission. A corresponding clause was to be inserted in

Ministry contracts. It was further arranged that the Contracts department should consult the Admiralty by telephone as to the negotiations for reduction of shell prices which were to be carried on during the coming two months with firms to whose advantage it might be to play off one Department against the other. The Admiralty was to be supplied with copies of the Order and Supply Lists and the Lists of Firms and Factories employed by the Ministry for shell and components. They were also to receive copies of all the Ministry costs for the various natures of shell. The Admiralty in return was to supply a list of firms which had received grants of plant, etc., from the Admiralty.¹

In October, 1916, the question was raised in the Contracts department whether it would be possible to effect some economies by arranging with the Admiralty to re-allot the capacity of the armament firms between the two Departments. It was found, for example, that the Projectile Company was making weekly 2,500 6-in. Shell Mark XXA for the Ministry and also 2,000 6-in. Shell Mark IX for the Admiralty. It was suggested that one of the manufacturers whose capacity was about 2,000 might make the Admiralty shell, leaving the whole of the Projectile Company's capacity for the same nature to the Ministry.

A conference between representatives of the Ministry and the Assistant Superintendent of Ordnance Stores, Admiralty, was held on 15 November. The meeting considered the possibility of adapting certain designs in such a way as to make the same shell available for either naval or land service, as might be most convenient. The objection was that, whereas all land service shells were made with the 2-in. Fuze Hole, the Admiralty in all cases used the G.S. Fuze Hole, and generally the 45 or 44 Fuze, which had been rejected as unsatisfactory for land service. It was thought that this difficulty might be overcome in shells where a socket was used, but no decision was reached.

On the question of allotting the firms so that the whole production of any given firm should go to one Department or the other, the Admiralty representative considered that it would be difficult to make any general arrangement, but undertook that the Admiralty would consider any definite proposition from the Ministry, if they wished for additional capacity. The original proposal for re-allotment accordingly went no further.²

When the Joint Committee of Finance and Contracts Officers of the Admiralty, War Office, and Ministry of Munitions was formed,³ the question of adjusting priority, as between the Departments, in the use of contractors' plant came up again for discussion. It was admitted that, where one Department gave more profitable contracts than another, there was a tendency for the contractors to give preference to the more lucrative job. It was proposed to extend the arrangements

¹ HIST. REC./R./500/40.

² 94/Gen./528.

³ See below, p. 147.

for allocation of plant from shell contracts to contracts for guns and gun parts. The views of Supply Officers were to be ascertained.¹ After inquiry, however, it was finally decided that the clause should not be extended to other contracts than those for gun ammunition.²

In May, 1918, the Ministry reopened the matter, by calling the attention of the Admiralty to the inconvenience resulting from the diversion of labour and machinery from Admiralty to Ministry work and vice versa, without consultation between the Departments.³ The Admiralty, on 26 July, proposed the issue of a joint instruction to manufacturers not to divert capacity or labour without the sanction of both Departments. They also suggested the insertion in all contracts of the clause now used in contracts for shell and shell components, with the addition in brackets :—

“ The contractor undertakes that unless with the express approval in writing of the Department no (labour or) plant will be used for the purpose of this contract which, during the previous six months, has been used at any time for the work of the (Admiralty, or Ministry of Munitions). ”

The Munitions Contracts Board, however, decided on 18 August that it was not practicable to insert this clause, and the Board was informed that the Secretary to the Ministry proposed to negative the suggestion.⁴

III. Early Proposals for Central Purchase.

An early proposal for central purchase was made to the Finance Committee on Economy, by Mr. H. O. Williams, Director of the Contracts branch which purchased metals. He recommended on 1 May, 1916, that all metals should be purchased centrally for all Government Departments. He had lately bought tin satisfactorily for the Admiralty, and had encouraged the India Office to come to him for metal. The Director of Contracts, Mr. Hanson, formulated the principle that the Department which was the chief buyer of any particular commodity should buy that commodity for all Departments. Thus the Ministry should purchase all steel and copper, the Admiralty all coal, and so on. He observed that competition had often been avoided by the interchange of enquiries between Contracts officers, but that there there was no ruling principle. It was probable that the Departments did compete, with or without knowing one another's operations. It does not appear that this suggestion went any further at the time.

Shortly afterwards, the Finance Committee on Economy was seriously concerned about the situation of copper supplies.⁵ It was

¹ *Minutes* of 6 July, 1917.

² Munitions Contracts Board. *Minutes* of 14 December, 1917.

³ C.R.V./Gen./2084.

⁴ *Minutes* of 18 and 30 August, 1918.

⁵ *Minutes* of 19 June, 1916.

found that the different action taken by Government Departments made it impossible to handle the copper market satisfactorily and to ensure economical buying. There was the same lack of coherent policy in the case of lead, though here the consequences were much less serious. There was also at this time competition between the Allied Governments. Mr. Charles Rothschild thought there should be a complete programme of demands for metals for munition manufacture, keeping pace with the requirements of all Departments. Without this, he could not see when, where, or how the Ministry ought to buy. The Committee agreed to send a Minute to the Minister on the need for centralising the whole Government demand and supply of the chief metals.

This very intricate question was dealt with in the autumn and winter, 1916-17. It cannot be pursued here, as it belongs rather to the history of the control of materials, which will be treated elsewhere.

The Director of Army Contracts, Mr. Wintour, informed the Public Accounts Committee on 30 May, 1916, that he hoped to eliminate competitive purchase as between the Admiralty and the War Office by means of a system of joint costing and buying. But he admitted that up to the present the system had not been brought into operation.¹ The Committee expressed regret that the scheme had not yet taken definite shape.²

On the whole, little progress was made in the direction of central purchase before the year 1917.

IV. The Joint Committee of Finance and Contracts Officers.

The creation of an informal Joint Committee of Finance and Contracts Officers of the Admiralty, War Office, and Ministry of Munitions was first proposed by Mr. John Mann (Assistant Financial Secretary) in a Minute to the Minister of 10 April, 1917. The Committee was formed in June, and met for the first time on 6 July, 1917, at the Admiralty. The later meetings were usually held at the Ministry, and, after the first few months, attended chiefly by Contracts officers, the Finance representatives being summoned when necessary. The principal topics of discussion were the co-ordination of buying, the various types of cost-basis contracts, cost variation clauses, break clauses, and other matters in which uniform action was desirable. The Committee continued to meet throughout 1918, until it was superseded by the Colwyn Committee after the Armistice.

The Joint Committee took up the question of central purchase at their first meeting. They approved the principle that the Department with the major interest in any class of supplies should buy for Departments with a minor interest. Experience showed, however, that, where this principle was practised, the Departments with a minor interest were apt to find that their claims were subordinated,

¹ P.A.C. Report (1916), *Minutes of Evidence*, Qn. 3180.

² *Ibid.*, Para. 32.

and that the buying Department studied its own interest first. It was remarked that this had happened when the Army had bought guns for the Navy.

Lists were prepared of goods independently bought by more than one Department. It appeared that the chief examples were small tools, electrical stores, brass and other semi-manufactured metals, guns, and shells. It was agreed that proposals should be submitted for common purchase of some of these articles by the largest buyer. Guns and shells, however, could not be so bought. These cases were to be met by allocation of capacity with due priority, and this, it was understood, had already been arranged. On further consideration, obstacles appeared in the way of central purchase. The Committee resolved on 27 July that, while central buying was advantageous to the State, in certain important classes of goods, one Department would not be prepared to allow purchase by another. Thus, the Admiralty wished to retain purchase of its small tools, which, it was stated, were of special types and only ordered on a small scale. On 7 September, a decision of the First Lord of the Admiralty was reported, that there was to be no actual transfer in regard to goods at present purchased by the Admiralty. The Committee accordingly was reduced to attempts to promote further co-ordination, rather than a scheme for central purchase.

The question was revived in November, 1917, by a memorandum on Competitive Purchasing by Government Departments prepared by the Association of Chambers of Commerce. The memorandum proposed both "central purchase" in the sense in which the term has been used above, and also the local decentralisation of the organisation for placing orders.

It was pointed out that not only different Government Departments, but even branches of the same Department were now competing against one another. Early in the War, under the local Boards of Management, contractors had been sought out and set to work on shells, fuzes, etc. The contractors had soon found that the Boards had little power, and that they were encouraged by the heads of Departments at the Ministry to attend at headquarters. In order to recoup themselves for lost time, the contractors began to seek direct and better paid work. Moreover, in going the round of the Departments, they became better known, and they exploited the opportunities offered by inter-departmental competition.

Every Department appeared to have a "free lance staff" at its disposal, whose duty was to visit areas and report on suitable firms. Officials thus encouraged contractors to change their work. As difficulties arose on the older contracts through reductions of price and "the setting up of irritating conditions," the contractor became disposed to abandon his old work and take new orders from other Departments. Thus, the original shell and fuze contractors had been offered work by the Trench Warfare department, by other Ministry branches, and by the Admiralty. Latterly, the Air Board had appeared to be coming into competition.

As a remedy, the Association proposed local decentralisation. "It is felt that the concentration of the placing of all contracts in London causes unnecessary loss of time in personal attendance of contractors and important members of their staff, and that judgment as to the capacity of the contractor to undertake work to schedule quality and delivery time would be better done by a Board of General Control for all purchases in that locality, irrespective of the service they are ultimately required for."

In a letter of 8 November, the following resolution was sent to the Minister :—

"The Executive Council of the Association of Chambers of Commerce view with concern the waste of the productive power of the manufactories of the country, which is at present aggravated by the methods adopted by the various Departments of the State in buying supplies in competition with one another. The Council, while having reason to believe that the matter is receiving the attention of the Departments involved, urges His Majesty's Government to take immediate steps to minimise waste of this kind in every possible way."¹

The Minister circulated this resolution to the War Cabinet. The resolution was accompanied by further proposals that a fixed price should be attached to every store, such price to be common to all and based on a valuation allowing a reasonable profit to a reasonably well organised firm.

A draft reply to the Association of Chambers of Commerce was considered by the Munitions Contracts Board on 30 November. It was pointed out that the Ministry organisation had developed gradually from pre-war practice, and would no doubt be substantially changed after the War. A sweeping change while the War still continued might disorganise the work and cause a breakdown. The evil of competitive purchase between Departments was recognised, but it had been mitigated by the measures of co-operation described above.

The decentralisation of purchase was acknowledged to be an attractive proposal ; it had already been largely adopted. Experience showed that it worked well with simple stores of a standard type. It was advantageous in dealing with a large number of small contractors, but it would not be so universally. The largest firms had London offices and preferred to deal with the central Department, where they could discuss technical matters with experts and were in touch with the most recent work of experimental departments. Where designs were constantly being modified, this contact was very important. Local officers had only a general knowledge of stores. Also financial difficulties arose, and there was a danger of variation in practice in different areas, except where stores were simple and of a standard pattern so that detailed instructions could be given. Factory extensions and complications in contract terms could only be handled

¹ Munitions Council/373.

centrally. It was admitted, however, that the outside staffs were not sufficiently co-ordinated, and this matter was engaging the Minister's attention.

This reply indicates some of the causes which had prevented the Ministry from realising its original ideal of decentralisation. It had been intended at first that the bulk of the business should be dealt with locally. In the days of the Armaments Output Committee, the new contracts were to be placed, and the new Shell Factories managed, by Boards of Management. The system of Area Organisation introduced in the first months of the Ministry's existence had been based on the same principle. The Area Offices were planned as local branches of the Ministry, and it was expected that the central organisation would be confined to directing and co-ordinating their work. The only case, however, in which this expectation was fulfilled was that of Scotland, where the organisation was put into the charge of a man of strong personality invested with the powers, as it were, of a local Minister of Munitions. The offices in England had not developed on the same lines or been put under any single authority with extensive powers of direction. Hence they became little more than office premises, where the several local staffs of different Departments camped out, taking their instructions independently from headquarters. Inter-departmental competition, in these circumstances, went on unchecked.

The Select Committee on National Expenditure, in their First Report (1917), stated that they proposed to devote further attention to the instances of want of co-ordination in buying between Government Departments which had come to their notice. The efforts made by the Treasury to prevent it had not been successful. The Committee recommended that

“ the Treasury should insist upon a more complete co-ordination between Government Departments in the purchase of munitions of war and the materials required for their manufacture.”¹

This recommendation led to the establishment of the War Cabinet Committee on Priority, and to the proposal that the Joint Committee of Finance and Contracts Officers should be placed on a formal footing. The Committee under the Chairmanship of Lord Inchcape, which will be mentioned below, was also instructed to study the subject of inter-departmental co-ordination. Pending the report of this Committee, Mr. Churchill desired that the Joint Committee should continue its work. A list of goods bought by more than one Department was prepared for the Inchcape Committee with a statement of the action that had been taken.² Mr. Mann proposed to the Joint Committee on 13 February that this list should be studied by the several Departments and that the Contracts Officers concerned should then be brought together to discuss central purchase or co-operation. The Admiralty, however, demurred to this proposal and declined to take action until the Inchcape Committee should have reported.³

¹ Report I. (1917), Paras. 36, 38.

² See Appendix XVII.

³ *Minutes* of 13 February and 19 March, 1918.

The Munitions Contracts Board meanwhile resolved that it was the duty of the Contracts department to see that contractors did not play off one Contracts section of the Ministry against another, and that consultations should be held, where possible, with the officers of other purchasing Departments about common stores. The prevention of internal competition was mainly a question for the Supply departments; but it was agreed to consult the Engineering Efficiency branch upon the extent to which the Contracts department could assist.¹

V. Report of the Inchcape Committee.

The Committee on Contracts, consisting of Lord Inchcape (Chairman), Lord Colwyn, and Sir Peter McClelland, was appointed by the Treasury on 18 February, 1918, with the following terms of reference :—

(1) To enquire into the steps which have been taken by the Admiralty, War Office, and Ministry of Munitions to control contract prices and to limit profits ;

(2) To consider in what respect the practice of these Departments can be co-ordinated and improved ; and

(3) To make any other recommendations which they deem desirable in the public interest.

The Committee reported on 7 March, 1918.² They found that there were about fifteen Government Departments purchasing more or less independently of one another. Under war conditions, the objections to such a system, which before the War had been neither serious nor obvious, were as follows :—

(1) Departments aimed primarily at satisfying their own requirements without regard to those of other Departments. They tried to buy at reasonable prices, that is, prices allowing a fair profit to the contractor ; but they differed as to the amount of profit that was reasonable, and as to the best forms of contract. Inter-departmental meetings of Contracts Officers had effected little improvement. All Departments should adopt uniform principles:

(2) Costing methods showed a similar want of uniformity, mitigated to some extent by the Inter-departmental Costings Committee and the Central Register of cost investigations. Hence one Department had less control over prices than another ; and a contractor, having fought for a particular method with one Department, had to fight for it again with others.

(3) Contractors could delay production by refusing one Government job and waiting for another, perhaps more lucrative. The Admiralty and the Ministry of Munitions had arranged to allocate particular firms to particular work ; but there should be some general machinery to secure that each contractor should do what Government regarded him as best fitted to do.

¹ *Minutes* of 22 February and 1 March.

² Copy of Report in Munitions Council/600.

(4) In spite of considerable improvement effected by arrangements for joint buying or consultation, the same or very similar articles were still being bought by several Departments, or even branches of one Department. They competed for the services of the same contractors, paid different prices, and even employed "hastening" staffs to see that contractors turned out their own requirements before those of other Departments or branches.

(5) It followed that there must be a number of isolated stocks of the same articles, under different control, in various parts of the country. Unified control would hasten deliveries, reduce expenses, and improve the check on demands and on programmes of supply. A central storekeeper could save railway removals, etc., by keeping local stocks of components.

(6) Twelve Government inspectors employed by different Departments had recently been found in one factory employing only 1,000 men. A single inspection staff would reduce expenses, and be more convenient to contractors.

(7) The same applied to costing staffs.

(8) Small and unnecessary differences in patterns and specifications could be reduced.

(9) Contractors who had a long dispute over prices with one Department now had to discuss the question again with another Department.

(10) Both in London and in the provinces, labour policy, both as regards rates of pay and transfer of staff from one Department to another, was not co-ordinated.

(11) A Cabinet Priority Committee had had to be set up to allocate material between competing Departments. Contractors complained that allocation was made without full knowledge of their needs for Government work. Unified control would simplify this work and reduce discussion.

(12) No one of the Supply Departments had a wide enough survey to consider certain post-war problems. Thus, one Department should have full knowledge of all Government requirements and stocks, so as to be able to decide what could be spared for the private trader after the War, and should know all branches of trade, so as to give advice upon key industries, etc., and their needs.

(13) All Departments should supply materials to contractors on the same system.

(14) Expenditure on salaries of buying staffs was excessive. Further, these staffs were to a large extent divided according to Departments purchasing, not into highly expert branches each controlling the trade in one class of articles.

The Committee went on to say that, if the length of the War and the demand for war supplies could have been foreseen, probably a central buying Department would have been set up at the beginning. Now that various Departments had gained experience and their

intromissions were so gigantic, a large scheme of amalgamation was difficult, and the Committee had considered alternatives. Since the War might still last some time, they believed it would even now be well to form a central executive Ministry of Supply, if a Supply Minister with the needful knowledge and personal qualities could be found. The Ministry of Munitions could be expanded to include all Government purchases, except food and highly technical naval supplies. The Minister of Supply could at first operate through the existing departmental staffs, and, without disturbing their work, introduce economies as he saw his way.

The War Office, Ministry of Munitions, and Air Board favoured a central Supply Ministry. The Admiralty had raised objections which the Committee did not endorse, except in the case of highly technical supplies.

In case this change of administration should present insuperable difficulties, the Committee proposed an alternative scheme:—

(1) A standing Committee of the heads of the Contracts departments of the Admiralty, War Office, and Ministry of Munitions (and Air Ministry, should they have a separate Contracts department), with an independent Chairman, to agree upon a procedure for all Departments as regards (a) the control of contractors' profits; (b) forms of contract (including break clauses); methods of costing; joint inspection, where possible; and joint cost investigations; (c) charges for material to contractors; (d) reduction of sub-contracting, and controlling sub-contractors' profits and main contractors' profits thereon; (e) avoidance of overlapping purchases of the same articles. The Committee would continue to meet weekly and suggest improvements.

(2) A similar Committee of the heads of the four Store departments, under the same Chairman, for the purpose of (a) suggesting reductions in the number of patterns; (b) investigating overlapping stocks of similar stores; (c) keeping all store returns and statistics up to date and at the disposal of each Contracts department; (d) introducing economies in storekeeping.

On 28 March the Ministry wrote to the Treasury, proposing that no official action should be taken on the Report for the present. The Treasury intimated that it was not intended to publish it immediately.

On 11 April a formal reply was addressed to the Treasury.¹ The Minister expressed satisfaction that the Committee was in favour of the establishment of a central Supply and Purchasing Department, and had recommended that the Ministry of Munitions should be that single Department. Since the Committee considered that the duties of the central Department could be carried out through existing establishments—a view with which the Minister agreed—it was not clear why they hesitated to recommend that the policy should be

¹ Munitions Council/600.

adopted at once. It should not be difficult for the Minister to select among the officers then controlling the several Contracts departments, one or two who could act under the Minister in the superintendence of contracts business.

The Minister did not regard the alternative scheme of two Committees as satisfactory, though he would offer no objection in principle. In some respects it would be advantageous that the co-ordinating work already being done should be placed on a more official footing, provided that the action of the Committees did not run counter to the responsibility of the Minister for his Department. Inter-departmental meetings had been arranged to discuss costing, the form of contracts, sub-contracting, and the avoidance of overlapping in purchase. Also, an inquiry, to be repeated quarterly, was proceeding, under the War Priorities Committee, into the question of stocks of stores, consumption, and the normal amounts to be held.

On 17 June the Report of the Inchcape Committee came before the War Cabinet. The Chancellor of the Exchequer stated that, after consultation with him, the Departments affected had now agreed to its recommendations. Subject to the War Cabinet's approval, he had asked Lord Colwyn to preside over the Standing Committees to deal with Contracts and Stores. The War Cabinet approved his action.¹

VI. Appointment of the Colwyn Committee.

On 18 June, accordingly, the Treasury appointed the Inter-departmental Committee on Contracts under the chairmanship of Lord Colwyn. The Departments were represented by Sir H. Livesay, Acting Director of Contracts, Admiralty ; Mr. Andrew Weir, Surveyor-General of Supplies, War Office ; Sir John Mann, Controller of Contracts, Ministry of Munitions ; and Sir Hugh Gwynne Levick, of the Treasury. The Committee was instructed to consider the general procedure to be adopted by the three spending Departments as regards :

- (a) The control of contractors' profits ;
- (b) Forms of contract (including the question of Break Clauses), methods of costings and arrangements for joint inspection where possible, and for avoiding overlapping costs investigations ;
- (c) The charges to be made for materials supplied to contractors ;
- (d) Arrangements for reducing the amount of sub-contracting as far as possible and controlling sub-contractors' profits and the profits of main contractors thereon ;
- (e) The avoidance of overlapping purchases of the same or similar articles by different Departments, whether centrally or locally.²

¹ War Cabinet 431, 17 June, 1918. Munitions Council/600.

² Treasury Minute 24215/18, 18 March, 1918.

Sir John Mann, as representing the Ministry, was instructed to reserve concurrence in any resolution moved contrary to the accepted policy of the Ministry, until he should have advised the Minister through the Financial Secretary and received instructions.¹

Before the armistice, the Committee produced two Reports : (1) on Building Construction Contracts (29 August, 1918), and (2) on Methods of Costing and Price-fixing (31 October, 1918). The recommendations made in these Reports are mentioned elsewhere.

VII. Agency Contracts.

The financial difficulties occasioned by the placing by one Government Department of orders for goods which were to be paid for by another Department, were taken into consideration by the Financial Secretary's Standing Committee in February, 1918. Mr. Guy furnished a list of classes of contracts placed by the War Office for stores to be delivered to Ministry establishments and paid for by the Ministry. The terms of the contracts did not make it clear what system of accounting was to be adopted, or that payment was to be made by the Ministry.²

The Controller of Contracts was asked to report on the matter. He pointed out that it also concerned contracts placed by the Ministry for other Departments. The questions to be decided were : (1) Could it be definitely laid down that each Department was to pay for the goods it ordered ? (2) Could some agreement be made as to invoicing goods so as to ensure that contractors were duly charged for materials supplied to them ? It was decided to propose that each Department should pay for its own contracts, and a letter was sent to the War Office requesting a conference.

In May a memorandum on this subject was submitted to the Joint Committee of Contracts and Finance Officers. Two possible schemes were set out in the following diagram :—

Department Controlling Supply.	Using Department.
<i>Scheme A.</i>	
(1) To negotiate contract.	
(2) To place contract.	
(3) To pay.	
<i>Scheme B.</i>	
(1) To negotiate contract.	(2) To place contract.
	(3) To pay.

It had been found that while Contracts officers favoured Scheme A, Accounting officers preferred B. The objections to A were that, where issues of materials were made to contractors, the use of different forms caused accounting difficulties, owing to delay in ascertaining

¹ General Memorandum No. 106, 3 July, 1918.

² *Minutes* of 27 February, 1918.

from the purchasing Department the quantities and values of the issues. The objections to B were delay in settling contracts, difficulties with regard to licences, permits, etc. Scheme B would prevent competition as to prices, but not as to output, since the paying Department, after placing the formal contract, would be responsible for securing delivery.

On 22 May, the Controller of Contracts reported to the Financial Secretary's Standing Committee that agreement had not yet been reached with the War Office Contracts department. The general feeling of the Committee was that, where the War Office were expert buyers (*e.g.*, for textiles), they should carry the negotiation of contracts to the point of agreement upon prices, and then hand over the contract to be completed by the Ministry. Thus the Ministry forms would be used. A corresponding arrangement should be made where the Ministry were expert buyers.

At the Joint Committee on 28 May, however, the War Office and Admiralty objected to placing contracts negotiated by another Department. The only point of agreement was that each Department should pay for its own contracts, unless the contract expressly stated the contrary. On the following day, the Financial Secretary decided that the case should be put to the Treasury for decision. The letter to the Treasury was sent on 11 June.¹ It explained that the three Departments had been unable to agree, and suggested that the Treasury should define a procedure to be followed by all Departments. Scheme B was recommended, and it was pointed out that the present practice would make it impossible to guard against the occurrence of duplicate payments.

The question was referred by the Colwyn Committee to a Subcommittee of Accounting officers of the three Departments. They recommended that each Department should pay for its own contracts and for no others; and that each Department should collect the cash for its own issues of materials, *e.g.*, the War Office should collect the cash for material issued by it for Ministry contracts. This recommendation was reported to the Munitions Contracts Board on 4 October, 1918.

On 30 October, at a meeting of the Finance Committee, the Chairman stated that the chief difficulty in the way of establishing the procedure he had proposed (namely, that each Department should pay for its own contracts and collect for its own issues of materials) was that no one officer at the War Office appeared to be deputed to make binding arrangements for all Accounts branches there. There had been no difficulty at the Admiralty. The Committee agreed that, when once the principle should have been agreed upon and approved by the Colwyn Committee, it would be desirable to try the application of it to one class of material at a time, so as to study the peculiar conditions of each class. Further action was interrupted by the Armistice.

¹ M.F./Gen./1497.

VIII. The Ministry of Supply.

The Machinery of Government Committee appointed by the Minister of Reconstruction considered various proposals for concentrating in the hands of a single Department of State the business of obtaining the supplies required by the Government, whether for purposes of national defence or for civil purposes. The evidence of the Financial Secretary to the Ministry was in favour of a Ministry of Supply.¹

The Committee reported in December, 1918,² that

“it would be advantageous to establish a Ministry of Supplies without delay, in order (a) to eliminate competition between Departments for labour, materials, and the services of individual firms; (b) to ensure that the prices paid and the conditions imposed under Government contracts for various classes of work should so far as possible be arranged upon uniform lines; (c) to secure economies in the use of technical staffs (such as contracting, accounting, costing, and inspecting sections.)”

They recommended that the Ministry of Munitions should be reconstituted as a Ministry of Supplies.

This recommendation was provisionally adopted by the Government, and, in filling the vacancy of Minister when Mr. Churchill was transferred to the War Office as Secretary of State for War, Lord Inverforth was appointed as Minister of Munitions and Supplies. It was, however, finally decided not to institute a Ministry of Supplies.

¹ C.R./4395.

² Cd. 9230, Chapter VII.

APPENDICES.

APPENDIX I.

(CHAPTER I., p. 28).

Rates of Profit prevailing before and during the War.

The following is a summary of the replies of the Directors of Contracts branches to the enquiry mentioned on page 28. (P.M./Gen./1143.)¹

1. STEEL. It is difficult to state with any degree of accuracy the percentage of profit carried by steel contracts in the past, as the scale of maximum prices, which continued practically unaltered for nearly two years, has not been adjusted in relation to variations in costs of production, and the result was that certain classes of steel, *e.g.*, shell steel, gave a high rate of profit (probably from 10 per cent. to 25 per cent. or even 30 per cent. in rare cases), whereas plates were latterly made with little or no profit.

The different prices just fixed from 1 November are more nearly related to the costs and are estimated to yield roughly 20s. per ton on most, if not all, classes of steel. As the prices are fixed for all makers, obviously some firms will make less profit and others more, as their processes and costs vary very widely, and 20s. can therefore only be regarded as a rough overhead average.

The cost of the steel may similarly be averaged at about £11 to £12 per ton, on which a 20s. profit represents 8 per cent. to 9 per cent. on the cost, or alternatively 7 per cent. to 8 per cent. on the turnover.²

¹ These statements are interesting as showing the limitations of departmental knowledge at the date in question.

² The following is an extract from evidence given by Mr. Judd, Deputy Controller of Munitions Contracts, to the Select Committee on National Expenditure, 20 November, 1917 :—

" Asked whether the Contracts Department has information showing the capital required per ton of steel so that the profit per ton can be expressed in the form of a percentage on the capital, Mr. Judd said that this information is difficult to arrive at, partly because some of the Companies are private and partly because where the Companies are public, all the works of different types are lumped together. He had, however, taken three representative public companies, two Scotch and one English, and all within the 20 largest producers. These give an average annual production of 25 to 30 tons for each £100 of capital. Taking the guaranteed minimum profit of 10s. per ton on an average production of 27 tons the total profit would represent 13½ per cent. on the capital—but this is without deducting Excess Profits Duty, which would probably absorb a large amount of it. Allowing for debentures and preference shares this might fairly be represented as a guaranteed minimum profit of 17½ per cent. to 20 per cent. on the remaining capital, but here again this does not take Excess Profits Duty into account. If instead of the minimum profit of 10 per cent. the estimated average profit were taken, the return on capital would of course be larger; but in either case the amounts would be reduced to a considerable extent by Excess Profits Duty. It is quite possible that in their negotiations the steel makers are endeavouring to get something towards excess taxation."

2. NON-FERROUS METALS. The Non-ferrous Metals are more difficult to summarise, especially as their high intrinsic value involves a speculative factor, which cannot be disregarded in estimating the profit, while on the other hand, in taking out actual costs and profits, the figures are seriously affected by variations in the market value and by fortunate or unfortunate buying, so that it is hardly possible to distinguish the profit on manufacture from the profit or losses on the metal.

Investigations have been made into several of the semi-manufactured products, *e.g.*, Copper Sheets, Copper Tubes, and Copper Rings.

3. COPPER SHEET. The costs of refining and rolling, exclusive of the value of the metal, vary from about £11 to £22 per ton, and basis prices were fixed which, coupled with the extras for special thicknesses, appeared on the average to give a profit of about £7 per ton. As this seemed high, a new basis was introduced from 1 October, 1917, representing a reduction of about £2 per ton. It must be borne in mind, however, that the resulting profit of £5 per ton cannot fairly be regarded as 25 per cent. to 45 per cent. on the cost of £11 to £22, as a considerable part of it is in respect of the market risk and capital involved in holding substantial stocks of copper worth about £150 per ton. In other words, if the £5 profit is calculated upon the total value of the rolled sheet, *viz.*, about £170 per ton, it represents a bare 3 per cent.

4. COPPER RINGS. Copper rings for shell bands were until recently bought on the basis of a fixed price per ton plus a scale of extras for the varying sizes. Investigation was made last summer into a number of cases. The costing system in most cases did not afford very precise information, especially in regard to the varying costs of the different sizes, but ultimately a revised scale of prices was submitted by the firms. We were able to get further modifications thereon, representing nearly £2,000 per week, but it is exceedingly difficult to say what rate of profit would be earned on the turnover. The factors of market fluctuation and lock-up of capital referred to above apply here equally.

5. BRASS CASTINGS AND STAMPINGS. The prices for Brass Stampings were revised early in 1917, and prices were also fixed at which the sub-contractors were to melt brass swarf into ingots and sticks, these prices being estimated to yield 10 per cent. upon the cost of the work excluding the value of the material.

Recently the casters have appealed for an increase, and on the basis of their figures (which have not yet been investigated) it would appear that they are making no profit whatever on the work.

6. SPELTER. A price of £56 per ton was fixed with the Spelter Association in April, 1917, for Refined Spelter. The firms, after considerable negotiation, accepted that price, and after the expiry of a half-year, the Ministry had called for returns from them to show the rate of profit yielded by that price. These data are not yet available.

7. EXPLOSIVES. *Pre-war Conditions.* The whole output of High Explosives in this country prior to the War was negligible in quantity in comparison with the demands which now come forward. From 1914 to the present date firms have undergone an educational period in the production of this war material.

Profits in 1917. Taken as a general figure a profit of 10 per cent. has been allowed on the cost of manufacture of cheap stores, but in some cases where special considerations arise, such as the delicacy or hazardous nature of the operation, the profit may have been so much as 20 per cent. of the cost ; in other cases, where the output was large, the profit may have been as little as 5 per cent. or less. In cases where it has been necessary, owing to the particular class of work, to place a contract on a cost plus percentage basis the profit varies from 5 per cent. to $7\frac{1}{2}$ per cent. on the wages and from $1\frac{1}{4}$ per cent. to $2\frac{1}{2}$ per cent. on the materials purchased by the contractors. Wherever possible, materials are supplied by the Department in these cases, in order to avoid a percentage being paid to the firm for handling.

A considerable reduction in the rates of profit has been effected through the Government taking over liability for explosion in cases where the contractor offers sufficient inducement in his price. In many cases Insurance Companies refused to take this risk and contractors had to allow for it by requiring a large margin of profit.

8. TRENCH WARFARE SUPPLIES. *Pre-war Profits.* No information is available as to these. Most of the articles purchased were not manufactured before the War.

Profits in 1916-1917. The contracts have always (as far as possible) been negotiated on the basis of allowing the contractor 10 per cent. profit.

9. SHELLS. *Pre-war Profits.* The Ministry is not in a position to express any view as to pre-war profits. In peace-time the Government Arsenal at Woolwich and the armament firms are practically the sole makers of shells.

Profits in 1914. The prices paid to contractors for shells in the first few months of the War before the formation of the Ministry of Munitions were necessarily high, one of the chief reasons for this being that it was necessary to encourage firms to take up the manufacture. The policy adopted in placing contracts at this time was to place a single large contract with an armament firm at a fixed price and to leave the armament firm to make arrangements for sub-contracting a considerable part of the order.

Profits in 1915. On the formation of the Ministry the position as regards price did not materially improve, owing to the fact that at this time there was an enormous increase in the demand for shell. In about four months, however, the Ministry began to acquire an increased knowledge of the cost of production of shells, and prices were reduced to a level which allowed the contractors a margin for contingencies and a profit of 10 per cent.

Profits in 1916. By the beginning of this year the experience the firms had obtained and the greatly increased output enabled them to effect considerable reductions in the cost of production. By taking advantage of this and by reducing the rates of profit an all-round reduction of nearly one-fourth was obtained on the prices early in the year. Later in the year it was decided to place contracts for periods of three months instead of for large quantities at a fixed price, and the practice was instituted of holding a conference with the armament firms a few weeks before the commencement of a new quarter to arrange the prices of production.

Profits in 1917. According to the available estimated costs, the percentage of net profit included in contracts for shell at the present day is 10 per cent. In a few cases where shells of a new nature are very urgently needed and it is difficult to ascertain the exact cost of manufacture, the profit is higher, but under the steady pressure which is being maintained there is every reason to believe that a uniform rate of 10 per cent. will be achieved. Ten per cent. may appear to be a somewhat high rate of profit for shells, but considerable extra expense has been thrown on the contractors from time to time by the shortage of steel and the production of steel of unsatisfactory quality.

10. COMPONENTS OF SHELLS. *Profits in 1915-1916.* The observations above with regard to shell apply also to components of shell.

Profits in 1917. The percentage of net profit which is included in contracts now being negotiated is about 10 per cent. In the case of fuzes there is also a margin for contingencies. Prices are mainly based upon costs.

11. FILLING SHELLS AND CARTRIDGES. *Pre-war Profits.* No information is available in the Ministry as to the pre-war rates of profit on this work. Practically all the work was done in Woolwich Arsenal.

Profits in 1916-1917. The prices with Filling contractors have generally been fixed after investigation on their costs. Without the Department binding itself to accept the cost as a basis for fixing contract prices, it is nevertheless generally found that the costs are sufficiently reasonable in comparison with those obtained elsewhere to treat them as a basis on which to base contract prices. Generally speaking, $7\frac{1}{2}$ per cent. to $12\frac{1}{2}$ per cent. on the total costs has been allowed as a margin of profit. At the same time contractors have been given to understand that the Department would be prepared to allow them up to even 15 per cent. profit if their costs showed a satisfactory reduction compared with the average cost elsewhere. Experience has shown that between $7\frac{1}{2}$ per cent. and $12\frac{1}{2}$ per cent. profit is the lowest margin at which contractors can be got to undertake the work. Whilst the rates of profit have been maintained between these limits, the reductions in cost which have taken place have considerably reduced the actual amounts of profit accruing to the firms. Wherever possible, the Department has supplied the contractors free of charge with the necessary material as well as the explosive. This has eliminated a substantial charge for materials in their costs and

consequently a reduction in their profit. As in the case of the manufacture of Explosives, the Government has effected a considerable reduction in the rates of profit on many of these contracts by taking over liability for explosion. About 80 per cent. of the Filling is done in National Factories.

12. SHELL FORGINGS. *Profits in 1914-1915.* Up to the beginning of 1916 the rates of profit ruling for Shell Forgings were very high, even up to 40 per cent. in some cases. The reason for this was that there was an impression abroad that the work was peculiarly difficult to do to the satisfaction of the Government Inspectors. The work had previously been confined to armament firms, and it was necessary to offer other Forge Masters considerable attractions and ample cover against the risk of rejections.

Profits in 1917. In all Shell Forging contracts the Department is endeavouring to work to a basis of 10 per cent. profit on the cost as estimated by the Department, or ascertained from an examination of the contractor's books, although in some few cases when the Department's estimate appears to be too conservative this is exceeded. As in the case of shells, the shortage of steel and the unsatisfactory nature of some supplies of steel stand in the way of very keen prices.

13. AMMUNITION BOXES. *Pre-war Profits.* The Ministry have no data which will enable them to state what the firms reckon as their pre-war profits—their profits during the first six months of the War from Government contracts, but it is worth noting that in pre-war times this Government work was a very small percentage of the output of the firms and their prices were, as a rule, very low, as the firms were anxious to secure small Government orders as showing their ability and standing.

Profits in 1916-1917. Contract prices have been fixed by competitive tendering followed by hard bargaining. The system has been to take the price quoted by, say, the first half-dozen reliable firms out of perhaps fifty tenders as the standard price, and to offer contracts at this price to the remaining firms. The effect of this system is to induce contractors to accept low prices and thereupon to work economically in order to make the contract pay. There is very good competition for the work, and it is not possible to say accurately what profit is made, but it is estimated that on the average it does not exceed $7\frac{1}{2}$ per cent. on the cost of manufacture. It is interesting to note that recently the costs of the largest firms making Ammunition Boxes were investigated on five contracts. On one the profit was 10 per cent., on three between 4 per cent. and $7\frac{1}{2}$ per cent., and on the last contract the firm were making a loss.

14. RAILWAY MATERIALS. *Profits in 1914-1915.* The Ministry did not purchase Railway Material during this period and no information is available as to the rates of profit earned.

Profits in 1917. The percentage of net profit which the Department endeavours to include in contracts now being fixed is 10 per cent., but in certain cases when supply is very urgently required

this has to be exceeded. Contractors for Railway Material generally have a wide range of manufactures and are able to secure other more lucrative orders if the Ministry prices are cut too fine.

15. ELECTRICAL STORES. Up to September, 1917, the Department has been able to place its contracts on the basis of competitive tenders, but has now commenced to conduct cost investigations in regard to certain items of which large quantities are required.

16. GUNS AND HOWITZERS. *Pre-war Profits and Profits in 1914-1915.* There are no comparative data available in the Ministry between the prices now being fixed and corresponding prices during the first six months of the War or previous to the outbreak of War.

Profit in 1917. Prices for Gun and Howitzer Equipments are being settled after investigation of costs. The rate of profit which the Department is prepared to allow is usually 10 per cent., but in the case of Gun Forgings a rate of profit up to 15 per cent. is allowed. This is due to the length of time which it takes to produce a Gun Forging. Speaking generally, the metal stock used in the production of gun Forgings can be turned over only three times a year as compared with 10 or 12 times a year for Steel Bars, Plates, etc. In a few cases where the firms' valuable specialities, e.g., Sights, etc., and the cost of experimental work have not been allowed in overhead charges, the rates were sometimes higher than 10 per cent. The prices for spares have suffered a considerable reduction on those paid earlier in the War, when the Department did not have such a wide experience of the prices of these items and when urgency of supply hampered the negotiation of keen prices.

17. AERONAUTICAL SUPPLIES. *Pre-war conditions.* The Aeronautical industry, like the Explosives industry and indeed several others of those largely controlled by the Ministry, has almost entirely grown up since the outbreak of War, under abnormal conditions. There is no pre-war standard for purposes of comparison.

Profits in 1915-1916. The very few firms engaged in the industry before the War were makers of aeroplanes only and obtained practically all the necessary engines from abroad. An enormous special industry had, therefore, to be built up in a short period and the usual methods of a normal growth were quite inapplicable. The general principle was to place all orders at fixed prices after negotiations with contractors and after consultation with the technical experts as to the estimated fair price.

Profits in 1917. The lowest rate of profit obtainable by negotiation is generally on the basis of 10 per cent. on the total cost of materials, labour, and establishment charges.

In one or two cases lower percentages than 10 have been arranged and in some a higher percentage has to be allowed in view of the great urgency of supply and the special conditions of the industry.

18. MACHINE TOOLS. *Profits in 1917.* A percentage of profit on turnover equal to that obtained in the two pre-war years is allowed in cases where standard prices are not available. In certain cases,

where the pre-war profit was not considered commercially reasonable, prices have been fixed at a figure which will allow a profit of not more than 10 per cent. For standard machines the price is based on that in force in July, 1915. The percentage of profit is not increased with the advances in the cost of material or labour, but after investigation the prices, standard or otherwise, are permitted to be increased by percentages considered to cover the increased cost of production.

19. MECHANICAL TRANSPORT. *Pre-war Profits.* The profits made in the motor trade previous to the War probably reached 25 per cent. to 30 per cent., and in some cases probably more.

Profits in 1914-1915. When the War commenced the prices then ruling in the trade were usually taken as a basis by the War Office, and hence no doubt large profits prevailed for some time.

Profit in 1915-1916. The rates of profit continued as in 1914 but were in many cases absorbed to a considerable extent in the extension of works and were also reduced by the increases in wages and materials. These reductions were probably practically compensated for by an increased output and a reduction in sales expenses.

Profit in 1917. The contracts with large outputs are being revised where, as the result of cost investigation, a larger percentage than 10 per cent. is found to prevail. The percentage of profit which the Department is prepared to give in contracts now being fixed is at a rate not exceeding 10 per cent. on the turnover. Where contracts have been fixed on a cost plus profit-sharing basis, about 6 per cent. has been taken as the basis, to encourage the contractor to reduce costs as much as possible so that he may earn a higher rate of profit.

APPENDIX II.
(CHAPTER II., p. 41.)

Cost Returns for National Shell Factories.

A.

TABLE OF EARLIEST COST RETURNS FOR NATIONAL SHELL FACTORIES
(NOVEMBER, 1915, TO JANUARY, 1916).

(*Printed*) *Weekly Report*, No. 30, VIII. (19/2/16.)

H.E. Shell.	National Shell Factory.	Total Deliveries to 5 Feb., 1916.	Costs per Shell.		
			Nov., 1915.	Dec., 1915.	Jan., 1916.
18-pdr. ..	Keighley	34,173	9/1	8/10	9/1
	Dundee	17,000	—	10/2	9/1
	Uskside	3,960	13/1	13/-	—
	Huddersfield	9,196	13/2	13/2	13/11
	Liverpool (Haymarket)	50,000	14/7	12/11	—
	Ebbw Vale	5,468	17/7	20/2	—
	Swansea	—	—	—	17/11
4·5 in. ..	Leeds	60,750	44/3*	36/2	39/10
	Bradford	27,709	—	36/2	36/10
6 in. ..	Grimsby	—	—	—	68/10

* This high figure was due to the rejection of 32 per cent. or 6,341 out of 19,135 shell made in November, for bad material or workmanship. (*Printed*) *Weekly Report*, No. 21, VII. (18/12/15).

These figures related to 18-pdr. Mk. III and 4·5 in. Mk. V, the costs being exclusive of depreciation, rent, and interest on capital. Examination of details showed that the differences in cost arose almost entirely from (1) the proportion of shell rejected; (2) high costs of machining. (*Minute of Finance Committee on Economy*, 14-2-16.)

B.

TABLE SHOWING THE COST PER SHELL AS SHOWN IN THE PRODUCTION
STATEMENT OF THE NATIONAL SHELL FACTORIES FOR THE PERIOD
UP TO 31 MARCH, 1916. (D.A.O./Misc./92.)

H.E. Shell.	National Shell Factory.	Shell delivered or finished.	
		Quantity.	Cost per Shell
18-pdr., Mk. III	Keighley	64,897	9/8
	Dundee	62,797	9/9
	Dundee (sub-contractors) ..	8,183	18/3
	Wrexham	5,329	2/6
	Bristol (sub-contractors) ..	194,099	11/4½
	Huddersfield	22,385	18/4½
	Cardiff	11,933	24/10½
	Carlisle	1,337	53/3
	Ebbw Vale	23,332	56/4
	Derby	18,541	27/4
4·5 in., Mk. V ..	Bradford	54,287	35/6
	Rotherham	13,154	38/1
6 in., Mk. XVI.	Grimsby	5,397	52/5
	Llanelly	272	84/4
			430/9

C.

TABLE SHOWING THE COMPARATIVE COSTS OF PRODUCTION AT THE BEGINNING AND END OF THE THREE MONTHS ENDING MAY OR JUNE, 1916.

(Printed) Weekly Report, No. 50, XIV. (15/7/16.)

H.E. Shell.	National Shell Factory.	Total Cost per Shell.		Cost per Shell excluding materials.	
		Feb. or March	May or June.	Feb. or March.	May or June.
13-pdr. Mk. II .. (Bar at £15 per ton, uncut).	Nottingham	9/4	8/7	5/4	4/6
18-pdr., Mk. III .. (Bar at £15 per ton, uncut).	Dundee	8/6½	8/5	2/10	2/8
	Keighley	9/0	8/4	3/9	3/1
	Huddersfield	16/5	8/9½	11/2	3/5
	Liverpool (Haymarket)	13/2½	10/7	6/9	5/3
	Swansea	23/5½	10/9½	17/1	4/8½
	Dublin	16/1½	11/1	10/4	5/6
	Carlisle	16/10	11/5½	9/8	5/8½
	Ebbw Vale	18/2	12/8	11/4	6/9
	Uskside	15/5	12/9	8/9	7/0½
	Cardiff	21/1½	14/7	15/5½	8/5½
	Wrexham { (2/6 added for finish- ing else- where)	11/5	11/-	4/11½	5/5½
	Portmadoc	12/4	13/8	5/7	7/4
	Carnarvon	12/9	17/11	6/4	10/6
	Bristol (sub-contractors)	18/5	14/4	—	—
	Liverpool (Lambeth Rd.) (sub-contractors)	15/0	14/7	—	—
4.5 in., Mk. V .. (Forgings at 18/- each).	Bradford	31/11	28/11	10/-	8/5
	Derby	30/7½	30/5½	8/8	9/3
	Rotherham	45/6	41/-	17/1	14/11
6-in. H.E., Mk. XVI (Forgings at 40/- each, copper bands at 6/6 each)	Grimsby	77/11	72/2	24/9	19/7
	Uskside	83/9	81/8	28/-	25/9
	Leeds (stopping Mk. XVI in May).	86/11	95/8	32/9	38/-

NOTE.—The above statements illustrate the information as to comparative costs of shell bodies available in the early part of 1916. They must not be taken as indicating the scope of the information secured after the establishment of a complete and scientific system of costing in all National Factories. Particulars of the later developments of costing will be given in another part of the History.

APPENDIX III.

(CHAPTER II., p. 44.)

Negotiations with direct contractors for the reduction of H.E. Shell Prices.¹

The following is an account of the negotiations with two direct contractors, Messrs. Dorman Long, and Messrs. Craven.

The Contract (S 8067) with Messrs. Dorman Long belonged to the first group of contracts for 18-pounder H.E. shell arranged in January and February, 1915. The demands were at that time urgent; the quantities ordered were (by the standards then ruling) large; and the prices were high, ranging from 15s. 3d. per shell paid to the Austin Motor Company to 31s. 9d. paid to Messrs. Vickers for shell delivered at Montreal.² It was, of course, recognised at the time that for experienced firms such prices were fantastic. Steel could be obtained in February, 1915, at £14 a ton; Messrs. Austin purchased 2,450 tons at this price to cover them until June (94/S/2379). The military needs, however, were so pressing that the War Office felt itself bound to sacrifice considerations of cost. Under the bulk of these contracts deliveries could not begin before May or June, even if the contractors kept their promises.³

Deliveries under Messrs. Dorman Long's contract were to be at the rate of 10,000 a week from 15 May, and 20,000 a week from 15 June, 1915, unless and until two months' notice were given to discontinue. The prices were 24s. per shell up to 200,000 if delivered before 1 September, 1915, and approved; and 20s. for shells in excess of 200,000 and for all shells delivered after 31 August and approved. The extra 4s. on the first 200,000 shells was intended as an allowance towards the cost of new buildings plant, and machinery.

When notice had been given on 1 December, 1915, that the contract was to terminate on 1 February, 1916, Mr. Dorman proposed a price of 16s. for a new contract. The Ministry, on the other hand, considered that 10s. would yield him a good profit.

After looking into his costs, Mr. Dorman accepted 12s. 6d. (not including painting), with an addition of 1s. per shell for amortisation; the contract to run from 1 February to 30 June, 1916. The Ministry considered that the extra 1s. should complete the amortisation of 70 per cent. of the total outlay on new buildings and plant, which Mr. Dorman stated was £86,000. The remaining 30 per cent. was to represent the residual value. The firm subsequently protested that

¹ See, for Messrs. Dorman Long, Contracts S./8067, 94/S./4040, 1915, 1387, /672, /445; and for Messrs. Craven, 94/S./4961, 1898, /1124, /406.

² Contract S./8139 for 125,000, dated 5.2.15. Messrs. Vickers originally quoted 33/9 (as compared with 34/- for shrapnel) and only after some bargaining reduced their price to 31/9 and 22/9 for late deliveries. The price was accepted in May.

³ By 1 May the total number of 18-pdr. H.E. shell actually delivered was less than 8,000, out of 77,750 due for delivery by that date from three firms.

the 1s. would not suffice to amortise 70 per cent., and that 70 per cent. was not a sufficient reduction. They understood that the question was to be adjusted by valuation at the end of the War.

In Messrs. Dorman Long's case, the firm was induced to accept the new price of 12s. 6d. without much trouble. Messrs. Craven, Ltd., of Manchester, put up a much harder fight. Their contract (94/S/406 (A.7)) had been arranged in May, 1915, at the request of Mr. Booth and Sir P. Girouard. The contractors were to supply as many approved shell as they could produce on or before 20 May, 1916, up to a maximum of 250,000. The contract could be terminated by the War Office at any time before 20 May, 1916, subject to the repayment of a certain proportion of the proved expenditure on extra plant, and to the taking over at cost price of materials for which the contractors should have committed themselves. Advances, to be repaid with interest at $4\frac{1}{2}$ per cent. per annum, were to be made for the purchase of raw materials; and up to 80 per cent. of the value of any shell delivered and likely to pass inspection might be paid on delivery. Deliveries were to begin in August, 1915, to attain a rate of 8,000 a week in September, and to continue at that rate until termination.

When it is considered that the above terms protected the contractor from almost all risk, the price, 23s. per shell, was decidedly high. It was only given subject to an understanding that a reduction would be considered later.

In November, 1915, the deliveries were very much in arrears: out of 98,000 shell due for delivery, only a total of 6,688 had been delivered. The Company complained of initial difficulties due to inexperience, of delays in delivery of plant, of shortage of supplies of certain components, and of other obstacles. The Contracts department, however, considered that the price given under stress of the military situation in the summer had been so "extortionate" that the contract should be revised. Notice was given on 16 December that the contract would be terminated on 31 December, and a new contract at a revised price was proposed.

The struggle which then began between the Ministry and the contractor was complicated by the exceptionally high prices ruling in Manchester, where Mr. Craven alleged that all other firms had their contracts running to the end of March at 20s.

The controversy turned chiefly on two points: (1) the price to be paid for shells in all stages of manufacture, unfinished on 31 December, and (2) the price to be paid under the new contract. The first point was settled by allowing 18s. per shell for 32,800 unfinished shell under the old contract. Under the new contract, Messrs. Craven at first proposed 18s., alleging that the machining alone cost more than 12s. 6d. Their next offer was to take an order for 350,000 shells to be delivered during 1916 at 12s. 6d. plus 3s. for amortisation of plant. The Ministry declined to give an order for the whole year, and finally reduced the contractor to accepting 12s. 6d. on a contract running to 30 June 1916.

APPENDIX IV.

(CHAPTER II., p. 52.)

**Reduction of Shell Prices in Contracts with Armament Firms
for the Quarter April—June, 1917.**

Shell.	Mark.	Total No.	Price for Jan.-Mar. 1917.	Price for Apr.-June 1917.	Saving on whole amount per week.
			£ s. d.	£ s. d.	£ s. d.
9.2 in.	X	2,000	10 0 0	9 17 6	250 0 0
9.2 in.	IX	2,500	9 15 0	9 7 6	937 10 0
8 in.	V	600	7 5 0	6 12 6	375 0 0
8 in.	IV	5,000	7 5 0	6 17 6	1,875 0 0
6 in. Gun Shrapnel ..	XVIII	6,000	4 2 6	4 1 6	300 0 0
6 in. Gun H.E. ..	XXA	4,500	3 4 0	3 4 0	—
6 in. How.	III	19,000	3 5 0	3 1 6	3,325 0 0
6 in. How.	IV	1,000	3 8 6	3 4 0	225 0 0
60-pdr. Shrapnel ..	—	7,000	2 17 6	2 14 0	1,225 0 0
60-pdr. H.E.	VII	4,500	2 5 0	2 2 0	675 0 0
—	VIII	—	2 5 0	2 3 6	—
4.5 in. H.E.	VII	21,500	1 7 10	1 7 10	—
18-pdr. Shrapnel ..	IX	235,000	0 18 3	0 18 3	—
13-pdr.	—	13,500	0 15 9	0 15 6	168 15 0
		Total weekly saving..		.. ..	9,356 5 0

APPENDIX V.

(CHAPTER II., p. 52.)

Reduction of Prices on Gun Ammunition Estimates 1917-1918.

Comparative table showing the variations in quantities and costs in the estimates of 22 February, 1917, and 13 March, 1917, of the complete rounds to be purchased or manufactured between 1 April, 1917, and 31 March, 1918, and the saving effected by the reduction in prices of 1917 compared to the prices of 1916.

Total Cost of Gun Ammunition (1917-1918) :—

February Estimate	£463,242,250	
Deduct estimated savings by alterations in design and materials	13,242,250	£450,000,000
March Estimate	425,025,750	
Deduct estimated savings by alterations in design and materials	12,025,750	413,000,000
Decrease ..		£37,000,000

Saving effected by reduction in prices :—

Cost of 1917 Programme at 1916 Prices ..		£456,385,550
Saving on 1917 Prices	£31,359,800	
Saving by alterations in design and materials	12,025,750	
Total saving		43,385,550
		£413,000,000

Note.—"The saving of £43,385,550 effected by the reduction of the 1916 prices, has been attained in spite of the rise in the cost of labour since March, 1916, which is estimated by the Board of Trade at 10 per cent. As the cost of labour enters into every process in the manufacture of the complete round, from the mining of the raw material to the transport of the finished article, it may be said that at least 75 per cent. of the total expenditure of £413,000,000, viz., about £310,000,000, has been due to the cost of labour; and that, if the cost of labour had not risen by 10 per cent., the total of £413,000,000 would have been reduced by 10/110 of £310,000,000. In other words, the total expenditure would have been £385,000,000, and the saving now shown of about £43,000,000 would have been increased to £71,000,000."

APPENDIX VI.

(CHAPTER II., p. 58.)

Inquiry into the extent to which Costing Figures were used by the Contracts Department. (April, 1917.)

On 25 April, 1917, the Director-General of Munitions Contracts issued a minute to each section of the department (except P.M.2 A. and B.) requesting a return in regard to all articles brought by the section, showing to what extent cost figures were available, whether supplied by the Finance Costing department (T.S.C.) or obtained by examination of a firm's books.¹

The following is a summary of the replies :—

P.M.1 A. (Metals.) Cost figures were available only in the case of (a) Brass Fuze Rod and (b) Copper Rings pressed from sheet. In both cases the figures had been arrived at by the Finance branch M.F. 6, after investigating manufacturers' books.

P.M.1 B. (Metals.) No cost figures were available. Applications from contractors for a modification of contract prices were referred to the Finance department which had then, in certain cases, examined the firms' books.

P.M.1 C. (Vehicles.) No cost figures had been supplied by T.S.C. Cost figures for bicycles had been obtained by examining the books of firms which had claimed an increase of price. It had then been found that out of four firms making bicycles three were supplying at contract prices at a loss, and increases of from 2s. to 8s. per bicycle had been awarded by the Departmental Contracts Committee.

P.M.1 D. (Electrical Stores.) No cost figures had been required or received from T.S.C. Books had been examined for this purpose only in the one case of the General Electric Company, which had applied for an increase of price on its contract for Searchlight Carbons. Details had not yet been received.

P.M.1 E. (Machinery and Railway Plant.) Figures had been obtained in connection with a single contract for submission to the Departmental Contracts Committee.

P.M.2 C. (Forgings.) Figures had been supplied by T.S.C. for a number of classes of stores.

P.M.2 D. (Components.) For all recent components prices had been discussed with the Finance Costing department. For the older components the rock-bottom prices were well known.

¹ P.M./Gen./818.

P.M.2 E. (Fuzes, Gaines, Cartridge Cases.) Costs had been obtained from T.S.C. for practically every article. In the case of certain stores, notably Brass Rod, Stampings, and Copper Tube, costs had been obtained from firms' books.

P.M.2 F. (Plugs, Adapters, etc.) Costs had been obtained from T.S.C. in practically every case.

P.M.3. (Machine Guns, Small Arms, etc.) Practically no cost figures had been obtained. For the great bulk of the stores bought the supply was greater than the demand, and very reasonable prices could be obtained by competition. It was recommended that the costs of Lewis and Hotchkiss Guns and of the B.S.A. Co.'s Rifles should be investigated. For Small Arms Ammunition, estimates of costs had been submitted by the firms in connection with a revision of contracts now proceeding. These estimates had been carefully examined and it appeared that there was no likelihood of excessive profit being made.

P.M.4. (Motor Vehicles.) No cost figures had been obtained from T.S.C. ; but the books of ten firms had been examined by the War Office costing accountants or by representatives of M.F. 11.

Contracts. (Aeronautics.) There had been no staff available for examining books. D.C.F. had investigated costs in several cases, and prices had been paid accordingly. A number of investigations were still in progress.

P.M.5. (Trench Warfare.) Costings had been obtained for a number of articles.

APPENDIX VII.

(CHAPTER III., p. 78.)

Rules for determining the Effect of Wage Fluctuations on Price.

The following is a specimen of these rules, attached to Contract No. P.M./C/5438 with the Birmingham Metal and Munitions Co., Ltd., for .303 in. Mark VII. Ball Cartridges (19 May, 1916) :—

“ 1. The Contractor will prepare Schedules showing :—

(a) The wage cost per thousand cartridges of each operation, and the indirect wages per thousand cartridges on 19 May, 1916.

(b) The alterations in the wage cost per thousand cartridges of each operation, and the indirect wages due to alterations in the rates of wages between the above date and 30 April, 1917 (*i.e.*, three weeks before deliveries are due to commence under the contract).

2. The contractor will thereafter one week before any alteration in the rates of wages approved by the Minister comes into operation prepare a Schedule showing the effect of such alteration on the wage cost per 1,000 cartridges and the indirect wages.

3. These Schedules will be checked by a representative of the Minister, and the contractor will give such representative every facility and assistance for ascertaining that the Schedules are correct, such facilities to include the production of the contractor's books, wages sheets, etc. The decision of the Minister's representative as to the effect of any alteration in the rates of wages on the labour cost shall be final.

4. The price to be paid for cartridges delivered under the contract (apart from fluctuations due to variations in the price of materials) will be the basis price of 101s. 6d. per 1,000 plus or minus the cumulative total of the variations in labour costs shown in the Schedules to date. The variation shown in any Schedule shall not, however, be taken into account until three weeks after the variation in the rate of wages shown in that Schedule has come into effect.”

SCHEDULE.

Name of Contractor	
Date and Number of Contract	
Nature of Article	
Contract price per	articles
Proposed amended price per	articles
Average time taken to manufacture the article	
Number of articles to which the alteration in price is applicable.....	

	I.	II.
Number of weeks during which the articles were being manufactured at <i>each</i> of the rates of wages set out below.		
Average number of articles delivered per week during each of the periods named.		

I.

II.

At date of Contract.

After change in rates of Wages.

No. of operators.	Grade of operator.	Rate per hour.	Earnings of all operators per week. Labour cost per week.	Labour cost per article.	No. of operators.	Grade of operator.	Rate per hour.	Earnings of all operators per week. Labour cost per week.	Labour cost per article.
Total Labour cost per article ..					Total Labour cost per article ..				

In June, 1917, a revised form of " Rules for determining the effect of wage fluctuations on price " (Form P.M. 39) was drawn up. The alterations were to be shown on the same Schedule as that which had been used in connection with the Rules given above.

APPENDIX VIII.

(CHAPTER III., p. 98.)

Cost Variation Clause, M.C. 17.*Declaration by Contractor.*

I. The Contractor declares that the price is fixed strictly upon the basis of present rates of wages and present prices of materials, and that nothing has been allowed and no item is included in the price covering the contingency of a rise in the cost of either labour or materials.

Contractor may claim.

II. If during the currency of the contract the cost of labour and/or materials shall be increased by direct Government action (as defined below), the Contractor may claim and the Minister of Munitions shall repay any increased cost of production due to increased costs of labour and/or materials, provided the following conditions are observed:—

Estimated claim to be lodged forthwith.

(1) Upon the announcement of any increase of wages or increased cost of materials resulting from such direct Government action as aforesaid, paid or employed in the execution of this contract, the Contractor shall forthwith notify the Department of the estimated amount of his claim in respect of increased cost of production due to these causes.

Clear records to be kept.

(2) If the Contractor shall so notify the Department he shall keep his records in such form as to show clearly the amount of the extra cost due to the rise in wages and/or in the price of materials.

Net increase.

(3) No claim shall exceed the strictly net amount chargeable to the contract on account of increased cost of labour and/or materials properly employed in the execution of the contract, *i.e.*, no addition whether in name of establishment charges or profit or otherwise shall be admitted, but a claim for such increased cost shall not be excluded merely on the ground that the cost of such labour (including pay of foremen and draughtsmen) is brought into account in the cost accounts of the Contractor otherwise than as part of the direct cost of labour and/or materials.

Choice of immediate or postponed settlement.

(4) Upon the receipt of any such claim the Minister may either :—

(a) agree with the Contractor the amount by which the contract price shall be increased by reason of such claim, without awaiting the completion of the contract, or

(b) failing agreement may postpone the determination of such claim until the due completion of the contract. Provided that, if required by the Minister, any such claim must be supported by the certificate of a Chartered or Incorporated Accountant, or by some other accountant approved in any particular case by the Minister, that such additional wages or cost of materials have actually been paid and the accounts and figures upon which such claim is based shall at the option of the Minister be subject to independent investigation on his behalf. The decision of the Minister as to the additional sum, if any, to be allowed shall be final and conclusively binding on the Contractor.

Claims due on satisfactory completion.

(5) Except with the prior consent in writing of the Minister no claim shall rank as due for payment before the expiration of the contract, and the Minister shall not be bound to pay any claim unless the Contractor has duly fulfilled the obligations of his contract to the reasonable satisfaction of the Minister, and no claim in respect of any work, goods or articles which are not completed or delivered within the date fixed by the contract shall be admitted, unless the Minister is satisfied that the delay has been due to causes beyond the control of the Contractor.

Interpretation.

(6) For the purposes of this clause “ direct Government action ” means :—

(a) In the case of wages.—Any award as to wages made upon any reference for settlement under the Munitions of War Acts, 1915 to 1917, or any order or award as to wages made by the Minister or by any Tribunal appointed for that purpose pursuant to any Act of Parliament, and

(b) In the case of materials.—Any order made or direction given by the Minister or by any other Government Department fixing the price of such materials, or varying the maximum price of such materials previously fixed by the Government.

Decrease of cost.

III. In the event of the cost of labour and/or materials being decreased by direct Government action as above defined during the

currency of the contract and of the cost of production of the goods ordered under this contract being in the opinion of the Minister thereby reduced, the Minister may withhold from the contract price an amount equivalent to the saving in the cost of production thereby effected on the contract, and in default of agreement as to the amount of such saving, such amount shall be decided in the manner prescribed above for dealing with claims for increase.

Sub-contracts.

IV. Claims shall only be admitted in respect of any sub-contracted work when—

(a) the sub-contract contains or incorporates provisions similar in all respects to the provisions set out in Clauses I, II, and III above governing this contract, and

(b) the sub-contract has been let with the approval of the Department in cases in which such approval is required by the main contract.

APPENDIX IX.

(CHAPTER IV., p. 119.)

War Break Clause for Fuzes and other similar Shell Components.

(FULL FORM).

For Clause 6 of the said General Conditions (the War Break Clause), the following clause shall be substituted :—

The Minister shall, in addition to any other powers of terminating this Contract, have power to terminate the same at any time by giving twenty-eight days' notice in writing to the Contractor of his desire to do so if the present war shall terminate or if the Minister shall be of opinion that the war is likely to terminate shortly.

In the event of such notice being given, the Minister shall be entitled to exercise the following powers or either of them :—

(A) To direct the Contractor to complete in accordance with the Contract all or any in course of manufacture at the expiration of the notice and to deliver the same at such rate of delivery as may be mutually agreed, or in default of agreement at the rate of delivery fixed by this Contract. All delivered by the Contractor in accordance with such directions and accepted shall be paid for at the price fixed by this Contract.

(B) To direct the Contractor to cease manufacture at the expiration of the said notice but so that the Contractor may up to the expiration of the notice complete any on which the Contractor has already performed some work of manufacture on the date of giving of the notice, but shall not otherwise undertake any fresh work under this Contract after the notice has been given unless directed to do so in writing by the Minister.

In the event of notice being given by the Minister under this clause and of the Contractor having reasonably performed all the provisions of this Contract :—

(C) The Minister shall take over from the Contractor at the cost price thereof all material and components in the possession of the Contractor at the termination of the notice properly provided or supplied to the Contractor for the performance of this Agreement and unused owing to the exercise of the power of termination with the addition of a sum equal to $2\frac{1}{2}$ per cent. of such cost price in full satisfaction of all expenses of the Contractor including storing handling or inspecting the same.

(D) The Minister shall indemnify the Contractor against any commitments which in the opinion of the Minister have been reasonably and properly incurred by the Contractor for the purchase of material and components in respect of the portion of this Contract uncompleted owing to the exercise of the power of termination.

(E) The Minister shall take over from the Contractor all material and components (except those to which sub-clause (C) above applies) upon which the Contractor has performed some work of manufacture at the expiration of the notice and which the Contractor shall not be directed to or be entitled to complete as aforesaid and will pay for the same the cost incurred by the Contractor calculated on the following basis :—

(I) The cost of material used so far as not paid for under sub-clauses (C) or (D) above.

(II) The cost of the actual productive labour employed on such material and components in course of manufacture.

(III) Such establishment charges as the Minister may consider to be reasonable and properly applicable to this Contract.

(IV) An allowance of 5 per cent. upon the total.

APPENDIX X.

(CHAPTER IV., p. 119.)

War Break Clause for Fuzes, Cartridge Cases, Primers, Friction Tubes and Plugs, as agreed with Messrs. Vickers & Co., and Messrs. Armstrong Whitworth & Co. 94/General/454.

For Clause 6 of the said General Conditions (the War Break Clause) the following clause shall be substituted :—

The Minister shall in addition to any other powers of terminating this Contract have power to terminate the same at any time by giving twenty-eight days' notice in writing to the Company of his desire to do so, if the present war shall terminate or if the Minister shall be of opinion that the war is likely to terminate shortly.

In the event of such notice being given the Minister shall be entitled :—

(A) to direct the Company to cease manufacture at the expiration of the said notice, but the Company—

(1) may up to the expiration of the notice complete any on which the Company has already performed some work of manufacture on the date of the giving of the notice, and

(2) may within a reasonable time after the expiration of the notice and at a rate of delivery to be mutually agreed, complete any on which the Company has already performed some work of manufacture on the date of the giving of the notice and has at least half finished at the expiration of the notice.

Except as above, the Company shall not undertake any fresh work under this Contract after the notice has been given.

In the event of such notice being given and of the Company having reasonably performed all the provisions of this Contract.

(B) The Minister shall take over from the Company at the cost price thereof all raw material and components in the possession of the Company at the termination of the notice properly purchased by the Company for the performance of this Contract and unused owing to the exercise of the power of termination with the addition of a sum equal to two and a half per cent. of such cost price in full satisfaction of all expenses of the Company including storing handling or inspecting the same.

(C) The Minister shall indemnify the Company against any commitments which in the opinion of the Minister have been reasonably and properly incurred by the Company for the purchase of material and components in respect of the portion of this Contract uncompleted owing to the exercise of the power of termination.

(D) The Minister shall take over from the Company all components (except those to which sub-clause (B) above applies) upon which the Company has performed some work of manufacture at the expiration of the notice and which the Company shall not be directed or be entitled to complete as aforesaid and will pay for the same the cost incurred by the Company calculated on the following basis :—

(I) The cost of the material used so far as not paid for under sub-clauses (B) or (C) above.

(II) The cost of the actual productive labour employed on such components in course of manufacture.

(III) An allowance for establishment charges at the rate current in the Company's Works, the exact percentage to be fixed by mutual agreement.

(IV) An allowance of 5 per cent. upon the total.

APPENDIX XI.

(CHAPTER IV., p. 121.)

War Break Clause for Shell Contracts (Armament Firms).

Clause 6 of the General Conditions shall not apply to this Contract, which shall continue in force until terminated by the Minister by notice in writing. Upon such notice being given :—

(A) No further work shall be performed by the Contractor under this contract except that he shall be entitled to complete the manufacture of the shells in actual process of manufacture at his Works on the date of the notice up to a number equal to eight weeks' production at the weekly rate herein specified. Such shells shall (to the extent that they are accepted) be paid for in accordance with the terms of this contract, and shall be delivered at the weekly rate herein specified, unless before the termination of the period of eight weeks which would be occupied by delivery of such rate the present war shall terminate, in which event the Shells may be delivered at a reduced weekly rate sufficient to complete the delivery thereof at the expiration of six months from the date of the notice.

(B) The Minister shall take over from the Contractor at the cost price thereof to the Contractor (plus 2½ per cent. for handling in respect of such portion thereof as was actually in the possession of the Contractor at the date of the notice) a quantity of such Material and components as have been purchased or manufactured by the Contractor, not exceeding in any one class of material or components a quantity or number sufficient for two weeks' production of Shells by the Contractor at the rate herein specified.

(C) The Minister shall take back at the price charged all material and/or components in the possession of the Contractor at the date of the notice which have been supplied to him by the Minister, and are remaining in the Contractor's hands unused after completion of manufacture under this contract.

(D) The Minister shall reimburse the Contractor the amount expended by him in respect of the time-wages of each employee who was engaged at the Contractor's Works upon or in connection with the forging of Shells under, or for the purpose of this Contract at the date of notice for such period (not exceeding fourteen days from the date of the notice) as work cannot be found for him or her as the case may be, provided the Contractor immediately notifies the Minister in writing of any such unemployment.

APPENDIX XII.

(CHAPTER IV., p. 121.)

War Break Clause for Guns and Howitzer Equipments.

For Clause 6 of the General Conditions of Contract (the War Break Clause) the following clause shall be substituted :—

The Minister shall in addition to any other powers of terminating this contract have power to terminate it at any time by giving notice in writing to the Company of his desire to do so.

In the event of such notice being given the Minister shall be entitled to exercise the following powers or either of them :—

(A) To direct the Company to complete in accordance with the contract all or any equipments in course of manufacture at the date of the notice and to deliver them at such rate of delivery as may be mutually agreed or in default of agreement at the rate of delivery fixed by this contract. All equipments delivered by the Company in accordance with such directions and accepted shall be paid for at the price fixed by this contract.

(B) To direct the Company to cease manufacture subject to the following provisions :—

(1) Immediately upon the notice to cease manufacture being given the Company shall prepare a tabulated statement of the stocks held for the purposes of the contract at the date of the notice. The statement shall distinguish between (a) raw material ; (b) unmachined forgings, castings and stampings and (c) parts on which machining work has been commenced. The Company shall also prepare a statement as to the commitments incurred by the Company for the purchase of material and components for the purposes of the contract and outstanding at the date of the notice. Such statements shall be submitted to the Minister not later than six weeks from the date of the notice and shall be supported by such evidence as the Minister may reasonably require.

(2) The Company may for the period of six weeks from the date of the notice continue to manufacture forgings, castings and stampings, and for that purpose may cog ingots into billet form.

The forgings, castings and stampings so manufactured during such period of six weeks shall be made to such drawings and specifications (not necessarily for gun construction) as the Minister may require, but until instructions are received from the Minister the forgings, castings and stampings shall be in accordance with the drawings and specifications current at the date of the notice.

At the expiration of six weeks from the date of the notice the manufacture of forgings, castings and stampings shall cease entirely.

(3) After the receipt of the notice to cease manufacture the Company shall not except as provided in para. (2) or except with the approval in writing of the Minister begin any work on unmachined material.

All work on which machining has not been begun at the expiration of the notice shall be regarded as unmachined material. Machining shall not be regarded as having been begun until the forgings, castings or stampings have passed test even though "rough machined."

(4) Each part on which machining has been begun at the date of the notice or which shall be begun after the date of the notice under para. (3) shall be completed within twelve calendar months from the date of the notice.

(5) Parts completed under para. (4) shall be assembled into components and surplus parts shall be treated as spares.

(6) As components are completed under para. (5) they shall be assembled into units of equipments and surplus components shall be treated as spares.

(7) The Minister shall accept units and spares duly completed under the foregoing provisions but not in excess of the numbers required for the monthly output of guns, howitzers, carriages, mechanisms and other units at the contract rate during the number of months set out against each pattern in columns 2 and 4 of the first Schedule hereto.

(8) If the Company shall have reasonably performed all the provisions of this contract (a) the Minister shall take over from the Company all forgings, castings and stampings properly provided for the purpose of the contract and on which machining work is not continued and shall pay the cost thereof as the same shall be agreed upon between the Minister and the Company plus 10 per cent. for profit; (b) the Minister shall also take over from the Company at the cost price to the Company all raw material properly purchased by the Company for the performance of this contract and unused owing to the exercise of the power of termination with the addition of a sum equal to $2\frac{1}{2}$ per cent. of such cost price on raw material delivered to the Company in full satisfaction of all expenses of the Company including storing, handling and inspecting the same.

(9) The rate of profit to be paid to the Company by the Minister for work done under this Break Clause shall be as follows:—

(a) For work done on complete units of equipments the amount set forth in column of the Second Schedule attached.

(b) For work done on forgings, stampings and castings on which machining is not continued and which are taken over by the Minister under para. 8 (a) the Company shall be allowed 10 per cent. as mentioned in that paragraph.

(c) For work done on spares taken over under para. (7) the Company shall be paid the most recent price paid to the Company by the Minister for similar spares less $4\frac{1}{2}$ per cent.

(10) In calculating the price to be paid to the Company for work done under this Break Clause any reduction in cost owing to the Company paying ordinary instead of overtime rates or owing to a reduction in the cost of labour or owing to similar reductions in sub-contracts shall be treated as a reduction in price and allowed for accordingly. The Certificate of the Company's Auditors as to the amount of such labour cost or sub-contracts will be accepted as final by the Minister.

The Company shall in any sub-contract placed by them in connection with this contract reserve to the Company a power of termination similar to that reserved to the Minister under this clause.

Note.—The following additional clause will be required in the body of the contract. It does not form part of the Break Clause.

“Forgings, castings and stampings shall be manufactured by the Company for the purposes of this contract only to such extent as in the opinion of the Supply department of the Ministry shall be necessary to secure continuity of delivery but the Company shall not be liable for any break in the continuity of deliveries caused by the action of the Ministry in reducing the output of forgings, castings and stampings to be manufactured.”

SCHEDULE I.

STATEMENT OF OUTPUT AFTER NOTICE REFERRED TO IN PARA. (7) OF BREAK CLAUSE.

1. Guns and Mechanisms and Carriage.	2. Number of months output at contract rate which may be completed after notice.	3. Howitzers and Mechanisms and Carriage.	4. Number of months output at contract rate which may be completed after notice.
18-pdr. ..	$3\frac{1}{2}$	—	—
12-pdr. ..	$3\frac{1}{2}$	3·7	3
3 in., etc ..	$3\frac{1}{2}$	—	—
4 in. and 5 in.	4	6 in.	3
6 in. ..	5	7·5 in. (Naval)	$1\frac{1}{2}$
7·5 in. ..	6	8 in.	4
9·2 in. ..	$7\frac{1}{2}$	9·2 in.	5
12 in. to 15 in.	9	11 in. (Naval)	3
		12 in.	6

APPENDIX XIII.

(CHAPTER IV., p. 122.)

War Break Clause for Aircraft Contracts (Form A.S. $\frac{95}{C.A.}$).

A.—The Minister shall in addition to his power to terminate his liabilities under this Contract, in case of default on the part of the Contractor, have power to terminate his liability thereunder at any time by giving notice in writing to the Contractor of his desire to do so, if the present war shall terminate or if the Minister shall be of opinion that the war is likely to terminate shortly.

The length of notice to be given shall not be less than as follows :—

- (a) In the case of Aircraft Constructors
except those coming under (b)
hereof 3 calendar months.
- (b) In the case of Constructors who have
since the war undertaken Aircraft
Construction in lieu of or in addi-
tion to their pre-war work and
Constructors who have undertaken
the manufacture of spare parts
only for aircraft or engines .. 2 calendar months.
- (c) In the case of Constructors of aircraft
engines 4 calendar months.

Provided (1) that in all cases the Contractor shall be entitled, if he so desires, to extend the time for delivery of goods the deliveries of which would have (but for the notice) been made during the period covered by the notice for a period of not exceeding six calendar months after service of the notice ; (2) that such deliveries shall be restricted in quantity to the deliveries contemplated by the Contract during the period covered by the notice ; and (3) that goods ready at the date of the service of the notice for final inspection or test, or which would have been so ready but for circumstances not reasonably within the control of the Contractor, shall (subject to passing inspection) be regarded as delivered before the service of the notice, and shall be accepted and paid for accordingly as provided by the contract.

B.—In the event of such notice being given the Minister shall be entitled to exercise the following powers or either of them :—

- (a) Forthwith to direct the Contractor to complete in accordance with the contract all or any articles in course of manufacture at the expiration of the notice and to deliver the

same at such rate as may be mutually agreed or in default of agreement at the contract rate. All articles delivered by the Contractor in accordance with such directions and accepted shall be paid for at the contract price.

- (b) Forthwith to direct the Contractor (subject as hereinbefore provided for) to cease manufacture wholly or partially at the expiration of the said notice.

In the event of such notice being given and of the Contractor having reasonably performed all the provisions of the Contract binding upon him down to the date of the notice :—

- (c) The Minister shall (if required by the Contractor) take over from the Contractor at the cost price thereof, plus 5 per cent., all or any material and components in the possession of the Contractor at the termination of the notice properly provided by or supplied to the Contractor for the performance of this Contract and upon which, owing to the exercise of the power of termination, no work has been done.
- (d) The Minister shall indemnify the Contractor against any commitments which shall have been reasonably and properly incurred by the Contractor for the purchase of material, complete machines, parts or components in respect of the portion of the contract uncompleted owing to the exercise of the power of termination.
- (e) The Minister shall (if required by the Contractor) take over from the Contractor all articles in course of manufacture at the expiration of the notice which the Contractor shall not be directed to complete as aforesaid and will pay for the same the cost incurred by the Contractor calculated on the following basis :—
- (i) The cost of the material used so far as not paid for under sub-clause (d) above ;
 - (ii) The cost of the actual productive labour employed on such articles in course of manufacture ;
 - (iii) Such establishment charges as shall in all the circumstances be reasonably and properly applicable to the Contract.
 - (iv) An allowance of $7\frac{1}{2}$ per cent. upon the total.

C.—The Contractor shall not be placed in a worse position as regards the proportion of capital provided for the purposes of the contract, in respect of which he is or may become entitled to any allowances and proposed to be written down in accordance with the provisions of Section 40 (3) of the Finance (No. 2) Act, 1915, or any

modification thereof than he would have been if the Contract had not included a break clause, and if he shows that the operation of the Break Clause results in the remission of Excess Profits Duty due to the allowance, under the said sub-section or modification in respect of the said capital being less than the remission to which he would have been entitled had a break clause not been put into operation, he shall be entitled to recover from the Minister the amount of the difference as a contribution in aid of the capital expenditure.

D.—Any matter of difference between the Minister and the Contractor shall be referred to a single arbitrator to be agreed upon, or in default of agreement to be nominated by the President of the Institution of Civil Engineers.

APPENDIX XIV.

(CHAPTER IV., p. 122.)

**Break Clause in the Standard Form of Assisted Contract
(Form M.C. 2) where the Minister provides plant.**

(A) In the event of the Minister deciding not to proceed with this Agreement at any date before the said plant and machinery is ready to produce he shall be entitled to terminate this Agreement at any time without notice in which event the Contractor's total outlays will be refunded by the Minister including all preparatory costs of any nature and in addition the Contractor will be paid a sum of five per cent. on the total amount expended by him as recognition for all services in connection with the preliminary design and organisation. All material covered by said payment shall be the property of the Minister.

(B) After the said plant and machinery is ready to produce the Minister shall have the option of terminating this Agreement at any time without notice in which event all outlays made or incurred by the Contractor in connection with this Agreement whether as regards construction or production shall be refunded by the Minister and in addition a sum of five per cent. on the total amount of such outlays.

APPENDIX XV.

(CHAPTER IV., p. 129.)

War Break Clauses used in some Agreements involving Capital Expenditure on Buildings, etc., by the Contractor.**" CLAUSE G."**

In the event of the War terminating before the completion of the extensions the Company shall immediately discontinue expenditure on the extensions and instruct any contractors to suspend work thereon and the Minister and the Company shall as soon as possible thereafter confer as to the best course to be adopted and in case the Minister and the Company shall fail to agree as to whether the extensions or any part thereof shall be permanently discontinued or shall proceed or as to the terms on which they should be discontinued or proceed the matter in difference shall be settled in the manner provided in this Agreement.

" CLAUSE H." (*A variation of the above.*)

In the event of the War terminating before the completion of the extensions the Company shall immediately discontinue expenditure on the extensions and instruct any contractors to suspend work thereon and the Minister and the Company shall as soon as practicable thereafter confer as to the best course to be adopted and in case the Minister and the Company shall fail to agree as to whether the extensions or any part thereof shall be discontinued or shall proceed or as to the terms on which they should be discontinued or proceed or as to any claim the matter in difference shall be settled on an equitable basis in the manner provided in this Agreement but in the event of the extensions or any part thereof being discontinued the Minister will indemnify the Company against any expenditure made by the Company in respect of such extensions less any sums written off under this Agreement and against any liability for damage in respect of contracts relating to the said extensions owing to the non-completion thereof.

**CLAUSES INTRODUCED INTO CONTRACTS FOR STEEL
EXTENSIONS (1917).**

In the event of the War terminating before the completion of the extension the Company shall immediately after the date of the termination of the War discontinue expenditure and suspend or cause to be suspended work on such extensions and the Minister and the Company shall as soon as practicable thereafter agree as to whether the extensions or any part thereof shall be permanently discontinued or whether they shall be completed and on what terms and in case the

Minister and the Company fail to agree as to whether the extensions or any part thereof shall be permanently discontinued or shall proceed or as to the terms on which they shall be discontinued or proceed, the matter in difference shall be settled under the next following paragraph.

VARIANT OF THE ABOVE.

In the event of the War terminating before the completion of the extensions the Minister shall have the right to cancel this agreement at any time on payment to the Company of the cost of the part of the extensions then completed and commitments already properly incurred by the Company for the purpose of the extensions provided that such payment (together with any amount which may have been already written off under para. 3) shall not exceed. per cent. of the total approved cost of the extensions, and in the case of such cancellation the payments to be made to the Company under the provisions of this Clause shall be in full satisfaction of all allowances for depreciation and under Rules 9 and 10 of the Munitions (Limitation of Profits) Rules, 1915, in respect of the said extensions and the capital expenditure thereon and all output therefrom during the period of control.

CLAUSE PROVIDING FOR INTERRUPTION OF EXTENSIONS.

In the event of the War terminating before the completion of the extensions the following provisions shall have effect :—

(a) The Company shall immediately after the date of the termination of the War discontinue expenditure and suspend work upon such extensions whether such extensions are being carried out by themselves or by Contractors.

(b) Within three months after the date of the termination of the War the Minister shall intimate to the Company his decision as to whether he desires the work on the said extensions to be permanently discontinued or whether he desires the same to be completed.

(c) If the Minister desires that the work on the extensions shall be completed the Company shall proceed to complete the same, and the provisions of this clause shall cease to apply.

(d) If the Minister shall decide that the work shall be permanently discontinued and the Company acquiesce in such decision and intimate to the Minister their intention of abandoning the extensions and shall abandon the same the Minister shall, after taking into account any sums written off under this agreement, recoup the Company for all its expenditure upon the extensions up to the date of the termination of the War and shall immediately indemnify the Company against any liability for damages in respect of breach of contract relating to any such extensions owing to the non-completion thereof, such recoupment and indemnity not exceeding together the percentages calculated on the total estimated and approved Capital Expenditure which the Company are entitled to write

off under this agreement, and the Minister shall be entitled to be repaid by the Company the value to the Company of any such extensions whether of buildings or plant after taking into account any decrease in value caused to the buildings and plant of the controlled establishment as existing previous to such extensions by reason of such extension, such value in case of difference to be ascertained by the Board of Referees hereinafter referred to or in the case of buildings or plant as may be capable of being removed, the Minister shall at his option be entitled to remove such buildings and plant and the same shall belong to the Minister.

(e) In the event of the Company not acquiescing in the decision of the Minister to discontinue the said extensions, the Company shall be at liberty to complete the works and the right of the Company to write off percentages of Capital Expenditure under this agreement shall be limited to writing off the said percentages of the approved expenditure on such of the extensions as shall have already been made at the date of the termination of the war.

APPENDIX XVI.

(CHAPTER IV., p. 139.)

Circular Letter to Contractors.

DRAWN UP BY THE FINANCE SUB-COMMITTEE ON DEMOBILISATION,
24 OCTOBER, 1918.

Gentlemen :—

I am directed by the Minister of Munitions to inform you that, having regard to the importance of hastening the reversion to peace industries of factories, personnel and raw materials as soon as possible after the cessation of hostilities, Mr. Churchill has decided that contracts for such stores, as will serve no useful purpose in peace, shall be terminated abruptly, when the position admits of our doing so, instead of continuing deliveries for the period stated in the present form of Break Clause.

I am therefore to state that it is not the present intention to continue production under your Contract No. for if the War terminates, or if the Minister is of opinion that it is likely to terminate shortly.

In that event a letter or telegram will be sent to you to cease production forthwith, and you will then be required to take immediate steps to put this instruction into force in your works, and to pass on the instruction to your sub-contractors. The Minister will accept liability for payment of wages in lieu of notice to any employees whom it may be necessary for you or your sub-contractor to discharge without notice in consequence of this instruction. He will also be prepared to meet reasonable and proper claims for compensation due to the sudden termination of the contract, instead of its termination under the War Break Clause or the specified period of notice, and it is hoped to issue shortly the proposals of the Minister for rapidly assessing this compensation.

It must be clearly understood that the Minister wishes no such action to be taken unless and until his definite instructions are received, and meanwhile you are to press forward production under the above contract at the rate already specified.

I am, gentlemen,

Your obedient Servant,

(CONTROLLER OF MUNITIONS CONTRACTS).

APPENDIX XVII.

(CHAPTER V., p. 150.)

List of goods bought by more than one Department and action taken (2 February, 1918).

Item.	Purchased by.	Action taken.
Shell, Shell Components, Guns.	Ministry and Admiralty	An understanding exists that plant which has been working six months for Admiralty is regarded as Admiralty plant, and six months for Ministry, as Ministry plant. This has worked conveniently. Arrangements between the two Departments as regards allocation and use of such plant are made from time to time.
Small Tools ..	Ministry, Admiralty and War Office.	War Office and Ministry co-operate.
Steel	Ministry and Admiralty	Arrangements made in concert.
Electrical Stores ..	Ministry, Admiralty, Post Office, India Office.	No overlapping between Ministry of Munitions and War Office.
Dynamos	War Office, Ministry ..	War Office to buy for Ministry Mechanical Transport.
Machine Tools ..	All Government Departments.	Various Departments consult the Ministry before inviting tenders, but only in cases of difficulty. It is suggested that the Departments should consult the Ministry in all cases as is already done by the War Office. Ministry should not, however, order all machine tools for the various Departments.
Partly manufactured Metals, e.g., Copper Tubing, Wire, etc.	Ministry, Admiralty, Post Office.	Admiralty and War Office have been in touch with Ministry prices through the Joint Costs Committee. Co-operation between Admiralty and Ministry exists in regard to copper tubes and brass discs, but not brass rod.
Low Power Petrol Engines.	War Office, Ministry ..	Ministry to buy on behalf of War Office.
Lubricating Oil ..	War Office, Admiralty, Ministry.	Ministry requires Mineral Oils, Petroleum Jelly and anti-foaming grease for agricultural tractors and Royal Flying Corps and will get through War Office. Admiralty have different specification and are not willing to delegate the buying to War Office. As War Office propose to buy through British Mission and as Admiralty although continuing to buy from importers will advise Mission of the transactions, the danger of competition may be considered as eliminated. Should War Office have to buy in this country question will require further consideration.

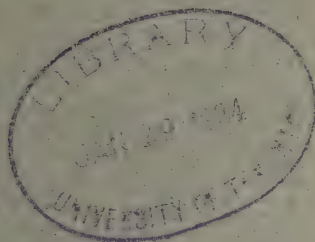
Item.	Purchased by.	Action taken.
Castor Oil	Ministry and Admiralty	Bought by both Departments. Ministry control castor seed. Co-ordination in purchasing exists.
Clothing	All Departments ..	No competition between Admiralty and War Office. War Office is buying clothing for Ministry of Munitions.
Oilskin Clothing ..	Admiralty and War Office.	War Office is largest buyer. No further purchases by Admiralty necessary for some months, but they will consult War Office when buying again.
Boots and Clogs ..	War Office, Admiralty, Ministry.	Ministry's requirements very small and will keep in touch with other Departments.
Rubber Boots ..	War Office, Admiralty, Ministry.	Ministry is contemplating erecting a repairing Factory. Ministry co-operates with War Office <i>re</i> new boots. Admiralty buying in U.S.A., therefore no competition in the trade here, which is mainly taken by War Office.
Optical	War Office, Admiralty and Ministry.	Ministry acts as supplier to Admiralty for many of the more important optical munitions. The Ministry is practically the supplier of optical munitions and glassware munitions for War Office, Home Office and other Departments excepting the Admiralty. Ministry is responsible for direct supply of <i>optical glass</i> to all Departments.
Wire and Wire Rope.	War Office and Admiralty.	Admiralty willing to buy Wire Rope for War Office, and this has been agreed to as regards the bulk of War Office purchases.
Drugs	War Office, Admiralty, India Office, Crown Agents.	War Office buys Quinine for all Departments. Admiralty and India Office consult War Office on some other drugs. No harmful inter-departmental competition on minor drugs.
Condensed Milk ..	War Office, Admiralty	Constant touch between Admiralty and War Office is maintained.
Hempen Goods ..	War Office, Admiralty	War Office and Admiralty taking steps to avoid competition by means of consultation. Ministry will consult War Office.
Fuel Oil	War Office, Admiralty	War Office propose to ask Admiralty to meet requirements.
Paint	War Office, Ministry of Munitions.	Aircraft will consult War Office throughout. Explosives buy through Office of Works.
Cotton Cloth Woollen Goods }	War Office, Ministry of Munitions.	Ministry's requirements for National Factories will be obtained through War Office.

INDEX.

- ADDISON, Dr. . . . 46, 51, 53, 85, 90
- ADMIRALTY—
Co-operation with 144
- AREA ORGANISATION 150
- ARMAMENT FIRMS 44, 67
- BERRY, Mr. Seager 129
- BREAK CLAUSES 112ff
Standard Clause 114
For Shell Components . . . 119, 181
For Armament Firms . . . 119, 183
For Motor Lorries and Cars . . 121
For Aircraft 121, 189
Proposed Non-War 133
For Assisted Contracts . . . 122, 192
- CENTRAL PURCHASE 144ff
- COLWYN COMMITTEE, 10, 18, 25, 35, 54,
60, 135, 154.
- CONTRACTS—
On Cost-basis 15ff
Cost and Percentage 20
Revision of 65
Liquidation of 141
Agency 155
- CONTRACTS DEPARTMENT—
Organisation 1
Contracts Claims Section . . . 107
- CONTRACTORS' BOOKS—
Inspection of 5, 11, 61
- CONTROLLED ESTABLISHMENTS ASSO-
CIATION, 54, 91, 106, 127.
- COST INVESTIGATIONS—
Opposition to 52, 59, 61
Register of 54, 151
- COST RETURNS—
At National Factories . . . 41, 168
- COST VARIATION CLAUSES . . . 64ff
In Boards of Management Contracts,
79.
In Other Contracts 82
M.C. 17, 18, 19 91, 178
- COSTING SYSTEMS—
At National Factories 11
- COSTS—
Methods of Ascertaining . . . 10
- DEFENCE OF THE REALM REGULATION
2 B 4
2 B B 8
2 E 5
7 4
8 3
8 A 3
15 C 6
30 A & B 5
- DEMobilISATION BOARD . . . 140
- DEPARTMENTAL CONTRACTS COMMIT-
TEE, 72.
Report I 73
Report II 75
Report III 87
Sub-Committee for Ministry . . 74
- EFFICIENCY BRANCH 59
- FEDERATION OF BRITISH INDUSTRIES,
34, 55, 60, 94, 106.
- FINANCE COMMITTEE ON ECONOMY, 44,
53, 146.
- FINANCIAL ADVISORY COMMITTEE—
Remit No. 25. . . . 26
Remit of 2/7/17 55
Report on Break Clauses . . . 127
- FIXED EQUIVALENTS COMMITTEE, 99,
102.
- GENERAL MEMORANDA—
No. 61 1
No. 130 15
No. 134 1
- GIBB, Sir George 70
- HAMILTON, Major George . . . 107
- HANSON, Mr. 39, 84
- HARRIS, Sir Charles 69
- ILSLEY, Mr. 128
- INCHCAPE COMMITTEE—
Report 32, 150, 151
- JENKINS, Mr. H. B. 114
- JOINT COMMITTEE OF CONTRACTS AND
FINANCE OFFICERS, 21, 54, 92,
100, 145, 147.
- JOINT COMMITTEE ON COST INVESTI-
GATIONS, 6, 54, 151.
- LEVER, Mr. S. H. 12, 40, 50

MACHINERY OF GOVERNMENT COMMITTEE, 157.	SMALLWOOD, Mr.	53
MANN, Sir John.	STEVENSON, Sir James . . .	40, 83
MINISTRY OF SUPPLY	SUB-CONTRACTS, Power to Modify. .	6
MONTAGU, Mr. E. S.	TECHNICAL COSTS SECTION, 12, 39, 57,	
MUNITIONS COUNCIL COMMITTEE—	59.	
No. 49	TERMINATION OF THE WAR, Defined,	
On Demobilisation	123.	
MUNITIONS OF WAR ACT (1916) .	4, 6	
O'BRIEN, Colonel	TREASURY AGREEMENT . . .	64, 71
PRICES—	TREASURY CONTROL	25
Peace Method of Fixing	WAR CABINET COMMITTEE ON PRIORITY	
Legal Powers bearing on	150.	
Provisional and Postponed . . .	WEBSTER JENKINSON, Mr., 12, 21, 33,	
Reduction of Shell Prices . . .	59.	
PROFIT, Rates of	WEST, Mr.	12, 40
SELECT COMMITTEE ON NATIONAL	WILLIAMS, Mr. H. O.	146
EXPENDITURE—	WINTOUR, Mr.	53
Report I (1917)		
Report II (1917)		
Report I (1918)		

HISTORY OF THE MINISTRY OF MUNITIONS



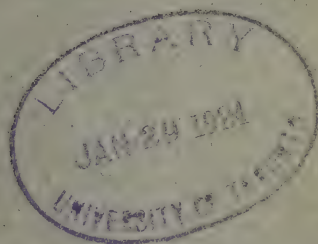
VOLUME III

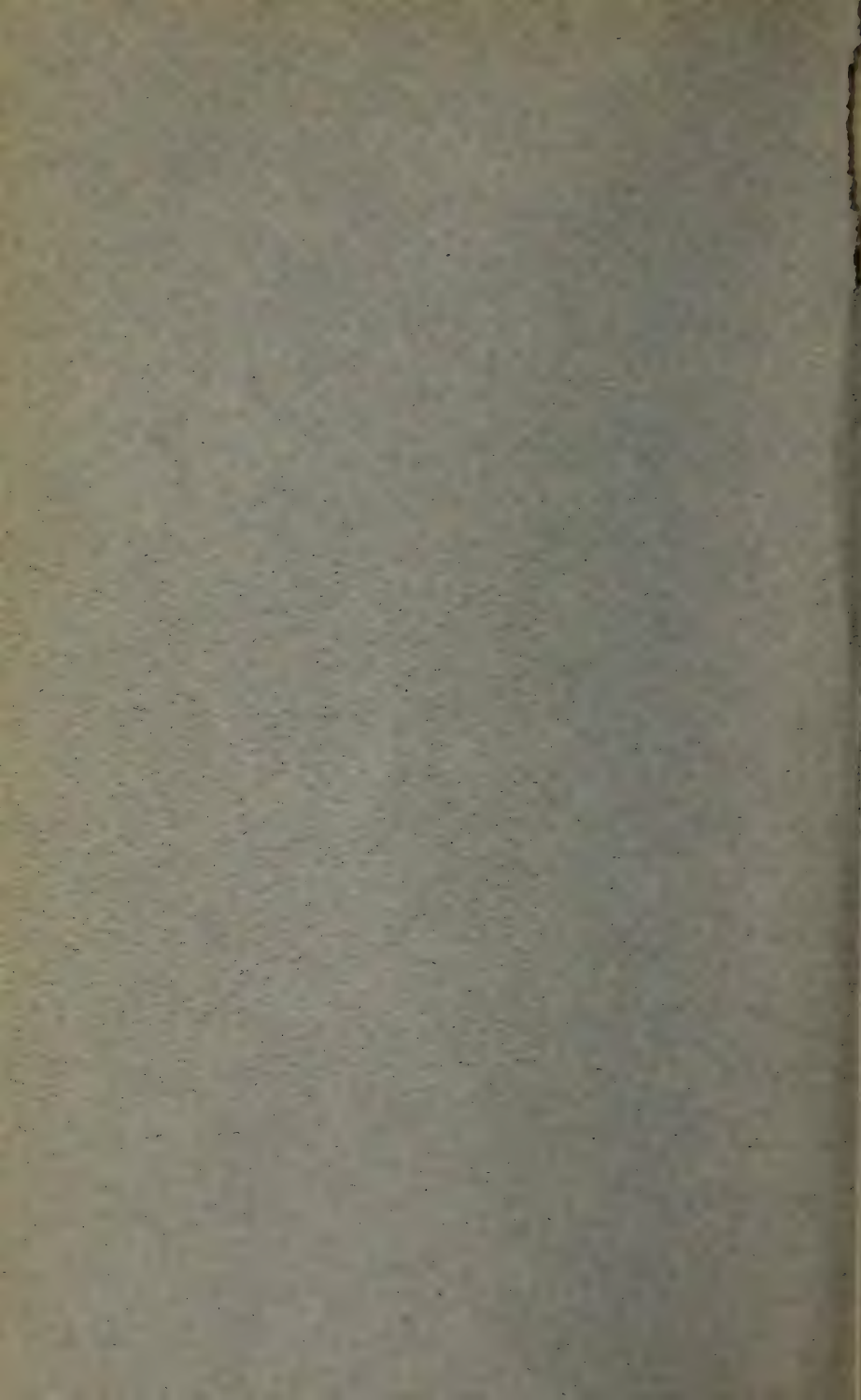
FINANCE AND CONTRACTS

PART III

FINANCING OF PRODUCTION

136.

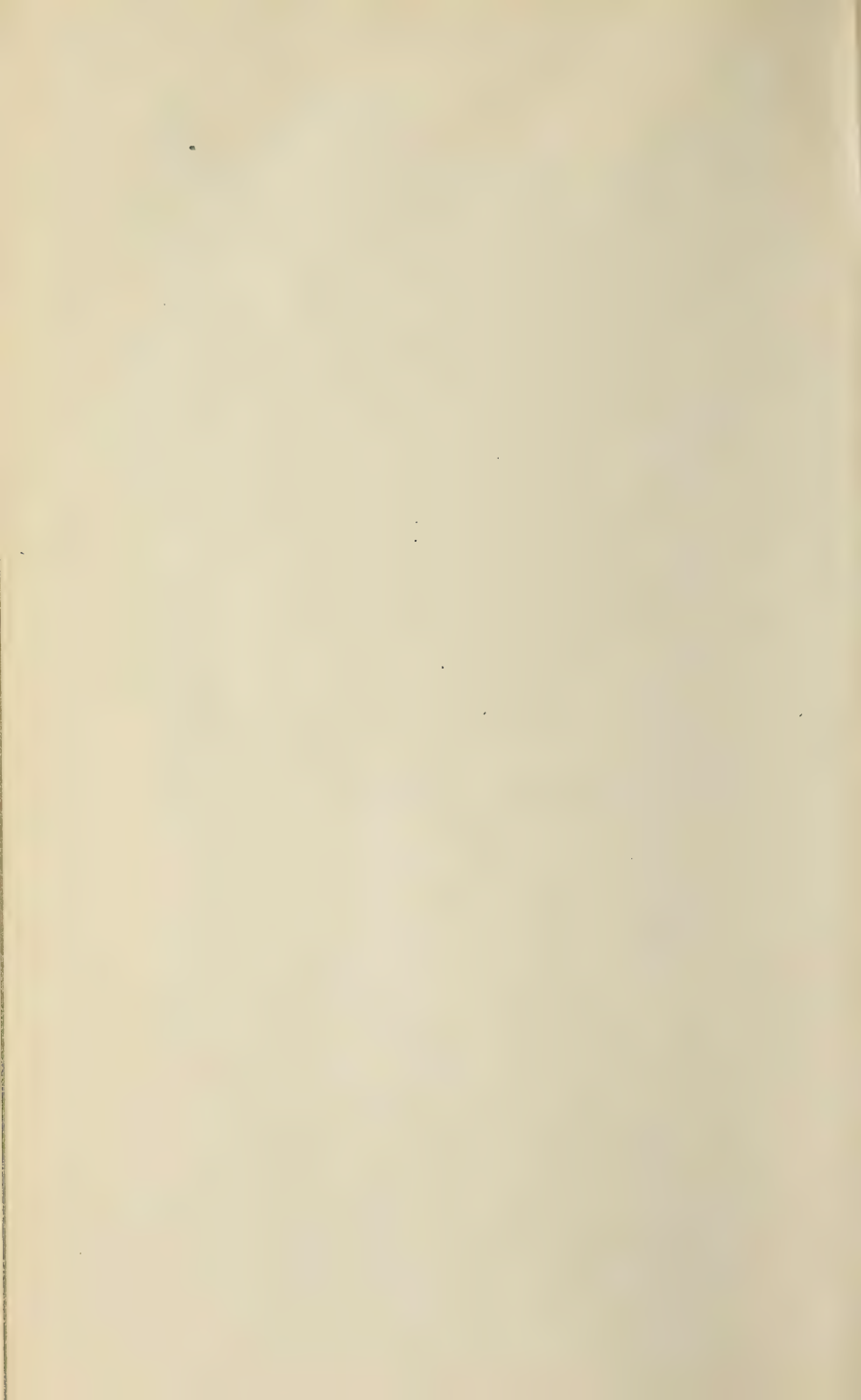




I

VOLUME III
FINANCE AND CONTRACTS

PART III
FINANCING OF PRODUCTION



CONTENTS.

CHAPTER I.

Assisted Contracts.

PAGE

1. Introductory	1
2. Assisted Contracts placed by the War Office	2
(a) Origin of Assisted Contracts	2
(b) Types of Assisted Contract	3
(c) Form of Advance	4
(d) Method of Repayment	4
(e) Possession of the Plant	4
(f) Form of Security and Rates of Interest	5
(g) Grants for Purchase of Raw Materials	5
(h) Co-operative Contracts	5
3. Assisted Contracts under the Ministry	6
(a) Types of Advances made by the Ministry of Munitions	6
(b) General Policy with regard to Assisted Contracts	7
(c) Advances with Property retained by the Minister	10
(d) Co-operative and Profit-Sharing Contracts	11
(e) Advances and Banking Loans	13
(f) Post Munitions of War Act Loans	16
4. Loans to Corporations	18
5. Capital Advances	20
6. Representation of the Ministry on the Boards of Contracting Firms	23
(a) A Government Representative	24
(b) A Government Representative and Director	25
(c) A Government Representative and a Director or Chairman with Special Powers	25
(d) Appointment of Whole Board and Ministry Ownership of Company's Capital	26
(e) Appointment of a Majority on the Board of Directors	26
7. New Issues Appeal Committee	27
8. Audit of Assisted Contracts	28

CHAPTER II.

Munitions Levy and Excess Profits Duty.

PAGE

1. Introductory	31
2. Principles of the Extension of Control	35
3. Reasons for the Extension of Control	38
(a) The Government	38
(b) The Employer	39
4. Administrative Machinery	41
(a) Functions and General Organisation of the Controlled Establishments Division	41
(b) The Fixing of Standard Rates and Accountancy Work	41
(c) The Valuation Branch	43
(d) Relationship of the Controlled Establishments Division to other Branches of the Ministry and to the Board of Inland Revenue	44
5. The Administration of the Act	45

CHAPTER III.

The Issue of Materials.

1. Introductory	53
(a) Systems of Material Issues	53
(b) " Free " or " Stock " Issues	55
(c) Issue on Payment	56
(d) <i>Per Contra</i> Issues	56
2. Proposal to Abolish Free Issues	57
3. Policy of the Finance Department with regard to Free Issues	61
4. Contracts Department Memorandum No. 29	63
5. Check on Materials supplied to Contractors	68
6. Liability of the Ministry to pay for Materials supplied under Control	71
7. Financial Importance of the Problem	74
8. The Priced Vocabulary of Munitions Stores	78

CHAPTER IV.

Control of Capital Expenditure.

PAGE

1. Introductory	81
2. Control of Capital Expenditure under Mr. Lever, 1915-16 ..	81
3. Institution of the Munitions Works Board	85
4. Register of Ministry Assets	90
5. Reconstitution of the Munitions Works Board: General Memorandum No. 87	95
6. Report I (1918) of the Select Committee on National Expendi- ture	99
7. Treasury Control	106

APPENDICES.

I. Munitions of War Act, 1915. Part II	112
II. Munitions (Limitation of Profits) Rules, 1915	115
III. General Procedure Minute No. 69	120



CHAPTER I.

ASSISTED CONTRACTS.

I. Introductory.

In the preceding part of this Volume an account has been given of the departure under war conditions from the old method of purchasing government supplies by contract, whereby the basis of cost plus reasonable profit was substituted for competitive tendering.¹ The present part will deal with the financing of production. This head includes all the methods by which the Government increased munitions production by capital expenditure, whether recoverable or not.² These methods fall into two main classes.

The earliest expedient was to grant assistance, at first to the armament firms and later to other manufacturers who took up munitions work, in the form of grants or advances of money to enable them to extend their works and to instal new plant and machinery. Assisted contracts of this kind were placed by the War Office from October, 1914 onwards. After the institution of the munitions levy under the Munitions of War Act, 1915, the earlier methods were largely superseded by arrangements whereby the firms were induced to proceed with capital expenditure themselves, with the promise of writings-down out of their excess profits, which would leave the capital expenditure standing on their books at a fair post-war valuation of the extensions. Finally, when the munitions levy was merged in the excess profits duty under the Finance Act (No. 2), 1917, a fresh method of making contributions was devised.

In the second place, assistance was also given to the contractors in kind. Explosives and steel, and later, materials of many other kinds, were issued by the Ministry to contractors on account of the difficulty of ensuring supply by other means. From the point of view of Ministry finance, the main interest here centres on the comparative merits of the various systems of issue: "free" issue, issue on terms of repayment in cash, and issue on terms of recovery "*per contra*" by deduction from bills. The controversy on this subject continued through the great part of the Ministry's history.

The question of finance in relation to national factories stands on a somewhat different footing and is not dealt with in this volume. Some reference to the subject will be found in Vol. VIII, Part I.

The last chapter of this part will deal with the control of capital expenditure in all these forms.

¹ Vol. III, Part II.

² The housing of munitions workers and the provision of canteens are dealt with separately in Vol. V, Parts IV, V.

II. Assisted Contracts placed by the War Office

(a) ORIGIN OF ASSISTED CONTRACTS.

The assistance to direct contractors given by the War Office in 1914-15 was authorised by the Treasury minutes of 8 December, 1914, and 29 January, 1915.¹ The former released the Army Council from the obligation to obtain financial sanction for "any expenditure (with certain exceptions) from Army Votes which is certified by or under the authority of the Secretary of State for War as vitally necessary to the public interest and to have been incurred under such conditions of urgency that it could not be submitted to the Treasury for sanction before it was incurred." The exceptions included expenditure for purchase of land or in respect of buildings or other works of a permanent nature. The later minute dealt particularly with "contracts containing special financial provisions of an unusual character, such as specific capital advances to contractors for plant, etc." The Chancellor of the Exchequer directed that "throughout the War such contracts should be concluded by the Admiralty and the War Department without reference to the Treasury."

In October, 1914, the War Office decided that the need, then first realised, for an enormous expansion of munitions production could be met by the armament firms, if they could be supplied with sufficient labour, and if they could extend their own works with government help, and simultaneously expand their system of sub-contracting.² The armament firms were invited to submit proposals for increasing their own output by extending their plant. Financial assistance was promised to enable them to carry out approved extensions. Most of the firms engaged in the manufacture of ammunition, explosives, guns, and small arms submitted schemes for consideration and received grants to cover the expenditure.

The War Office endeavoured to induce the firms to borrow the money for these extensions from the Government; but, at the outset, all the armament firms refused to consider any repayment of the capital advanced, and the grants were, in effect, gifts to the contractors.³ The amount of the grant was, as a rule, the total estimated cost of the extensions considered by the contractors to be necessary for attaining a definite output by a definite date, the promised output being what was calculated to be the maximum possible. The grants were not subject to detailed audit, but enquiry was made into circumstances attending any failure to reach the output promised. The grants were generally made in the form of an additional payment for goods supplied under contract.

The property in the extensions was (with one exception)⁴ vested in the contractor, under liability to maintain the plant at the disposal of the Government for the period of the war and for six months afterwards.

These arrangements constituted the earliest type of "assisted contract."

¹ See Vol. III, Part I, p. 2.

² Vol. I, Part I; Part III, p. 2.

³ HIST. REC./H/500/10.

⁴ See below, p. 5.

The first plant subsidies were paid to the shell-making firms, in September and October, 1914, and subsidies for increased plant for guns, rifles, and small arms ammunition followed in quick succession. It was not until the amount of munitions plant in the country had increased beyond all bounds of peace-time requirements and the firms had begun to realise that there would be a glut in machinery after the war, that they would agree to the condition that the subsidised plant should remain government property after the completion of the contract.

(b) TYPES OF ASSISTED CONTRACT.

Various attempts have been made to classify the different forms of contract under which capital was advanced, one of which may be quoted although it does not, in point of fact, fully cover the different methods adopted. According to this classification,¹ the granting of subsidies for plant passed through the following stages:—

(1) The contractor estimated the cost of the new plant at a definite sum, and this sum was paid to him outright, the only stipulations being:—

- (a) that if the plant was not ready to time, a proportion of the grant should be recoverable,
- (b) that the new plant should be kept available for the Government for the period of the war, and that the contractor should give one year's notice thereafter before dismantling it.

(2) The contractor estimated the cost of the new plant, and the actual cost of its erection as proved by his bills was repaid up to the amount of his estimate.² The same stipulations as to time and dismantling were made in these cases.

(3) The grant was made as in (1) and (2) but was recoverable by a deduction from the price of each article produced on the plant.³ As, however, the price to be paid for the article was usually increased by a corresponding amount, the ultimate result was much the same as in (1) and (2).

(4) The grants were made as in (1) and (2) above, but the plant remained the property of the Government and was removable by the Government at the end of the war.⁴

This categorisation did not profess to be precise, and although no doubt it is possible to trace a gradual development of policy on the lines thus indicated, no completely satisfactory classification is possible. The character of the advance could, and in point of fact did, vary according to the manner in which or the object for which the advance was made, according to the method of repayment, the ultimate possession of the resulting fixed capital, the form of security and the interest payable.

¹ HIST. REC./H/500/10.

² Contracts/Firms A/2186.

³ *e.g.* Contracts/S/6994.

⁴ *e.g.* Contracts/Firms A/2224.

(c) FORM OF ADVANCE.

In some cases the advance was made in the form of a lump sum or a series of lump sum payments based on an estimate of the probable total cost of the plant to be laid down;¹ in others the advance was made indirectly by adding to the price of the goods supplied by the contractor;² in others again an initial sum was paid based on a preliminary estimate; and further advances made against bills produced to prove that further expenditure had been incurred. Later, the practice of only making the grants against invoices, bills or auditors' certificates became more general, and in most cases a limit to the total which would be allowed, again based on an estimate of the probable cost, was fixed beforehand.

Payments of 80 per cent. of the value of deliveries were also made by the War Office from time to time. Such advances were, however, really payments on account, due to delays in inspection and to the strain to which the trading capital of the firms was subjected on this account, and on account of the size of the orders.³

(d) METHOD OF REPAYMENT.

As has been stated above, the first advances were direct grants of money for which no repayment was demanded. In other cases repayment was only demanded if the firm failed to reach a certain output by a definite date,⁴ or again was made conditional on the firm receiving certain contracts. When repayment was enforced the amounts due were in some instances paid by instalments, in others deducted from the manufacturers' bills.⁵ It was not, however, always made clear in the terms of the contract whether repayment was to be made or not, and sometimes, when the firm placed itself under an obligation to repay, the sum was left undecided, to be negotiated at the end of the war.

(e) POSSESSION OF THE PLANT.

When the advance was repayable or was a definite grant, the plant became the property of the contractor, although, in the case of the latter alternative, a condition was as a rule imposed that it should remain at the disposal of the Government for a fixed period after the war. When repayment was conditional upon certain orders being placed with the contractor, the contract sometimes determined that the property should be wholly vested in the contractor, sometimes that it should be divided in proportion to the amount repaid. When the character of the advance was in effect the loaning of (new) fixed plant

¹ e.g. Contracts/S/7021.

² e.g. Contract with Messrs Cammell, Laird & Co. (-4.15) for 18-pdr. shell (94/S/5).

³ A further alternative was that adopted in the case of the contract with Messrs. Rudge, Whitworth & Co., for .303 in. ammunition under which £65,000 was advanced in a lump sum on signing the contract and certificates of expenditure were subsequently produced. (Contracts/Firms R/2337.)

⁴ e.g. Contracts/S/7021. ⁵ e.g. Contracts/S/6994; Contracts/Firms R/1909.

to be managed by the contracting firm, possession, of course, remained with the Government, although in some cases the contractor was allowed an option to purchase after the cessation of hostilities.

(f) FORM OF SECURITY AND RATES OF INTEREST.

When the advance took the form of a loan of free capital to be repaid,¹ and was neither a gift nor a loan of plant (under which circumstances the question of security did not arise), the War Office in some cases required debentures or mortgages, and in others, on the semi-official assent of the Treasury, demanded no specific collateral, deeming its real security to lie in the goods to be delivered.

When debentures were obtained, interest was demanded usually at $4\frac{1}{2}$ to 5 per cent. per annum. But, in the majority of the early contracts, no interest was paid, or, when it was considered, was left with the principal to be negotiated at the end of the war. In some cases, when the plant remained the property of the Government, rent for its use was demanded.²

With so many possible and actual variations in each of the main conditions of the contracts it is clearly impossible for any classification to be at once concise and comprehensive.

(g) GRANTS FOR PURCHASE OF RAW MATERIALS.

In addition to grants and advances for buildings, the War Office in a few cases advanced sums for the purchase of raw materials. As a rule, such advances partook really of the nature of payments on account for a percentage of the deliveries, made before inspection, and should not perhaps be classed under capital transactions, although they were so entered in the War Office books. But, in some cases, they were more strictly banking loans.³

(h) CO-OPERATIVE CONTRACTS.

Amongst the other forms of capital advances made by the War Office, must be mentioned those extended to the local Boards of Management set up through the energy of the Armaments Output Committee.⁴ These advances were, as a rule, small in amount, ranging from £5,000 to £20,000 and were made direct to the Board, who as a rule guaranteed repayment collectively and individually. They were used by the Boards as banking loans for the initial expenses of organising the production of the various small contractors who formed a co-operative group, and for the purchase of raw materials. Practice differed both with regard to the terms of repayment and the rate of interest. More often than not, no interest at all was demanded, and the loan was made repayable at the end of the first contract by deductions from the invoices for a certain proportion of the final deliveries. These agreements

¹ e.g. Contracts/Firms R/1909; Contracts/S/7066.

² This was the case in a contract made with Messrs. Armstrong, Whitworth, in March 1915 (Contracts/Firms A/2224). An advance was made for the installation of new plant, and it was finally agreed that this plant should remain the property of the Government, the firm having an option to purchase at the end of war, and paying rent for its present use.

³ 94/S/406.

⁴ See Vol. I, Part III and Vol. II Part II.

depended upon the separate negotiations made with each Board. Some of the loans were repaid promptly, others were incurred as new contracts were placed, others again dragged on without any definitive arrangement being reached, and were used as the nucleus of the capital, to which was added the proceeds of the $2\frac{1}{2}$ per cent. levy, on which the business was run.

III. Assisted Contracts under the Ministry.

(a) TYPES OF ADVANCES MADE BY THE MINISTRY OF MUNITIONS.

During the interim period immediately following the institution of the Ministry, the only important items of expenditure dealt with separately by the Ministry were those on account of wages and salaries, and in connection with the Munitions of War Act. It was not until the beginning of October 1915, that a formal Munitions Account was opened.

It is no more possible to classify precisely the various forms of capital advances made by the Ministry than it is those of the War Office. After the passing of the Munitions of War Act, the practice grew up of assisting contractors by means of allowing them writings off against their obligations to pay munitions levy, a system which is dealt with in the next chapter. Direct grants and loans continued, however, in one form or another, during the whole period of the war. Although the following classification is not complete and the greatest variation of detail obtained in the contracts falling within each group, it covers roughly at once the bulk of the most important advances and the most important types :—

- (1) Grants to contractors for the construction and equipment of new works or for other extraordinary expenditure.

These grants were made in continuance of the system adopted by the War Office. The property was vested in the contractors, and in the most primitive contracts there was no provision for examination of the companies' books or inquiry into the actual expenditure of the full amount of the grant so long as the required output was obtained. Many contracts, more especially those taken over from the War Office, involved a penalty clause under which if deliveries were in arrears the grant was made repayable. The penalty clause, however, did not operate much after October, the Ministry preferring to check the proper use of the funds advanced by inspection of the firms' books, and making the expenditure on certain items of the total cost conditional on its consent.

- (2) Advances for works, the property being vested in the contractor.

These advances took the form of repayable loans, generally secured by debentures on the new buildings or a floating claim on the whole assets of the company, and repayable either directly on or before a fixed date, or by deduction from the firm's bills.

(3) Advances for works, the property remaining with the Ministry. Under this system the contractor was assisted by means of advances for additions to his works, which additions remained the property of the Ministry. In some cases the contractor had an option to purchase in whole or in part, at prices to be arranged when the plant was no longer required for munitions purposes.

(4) Co-operative Contracts.

Under these contracts, the fixed property likewise remained in the possession of the Ministry, the contractor being given an option to purchase after the war. Their peculiar characteristic, however, was that the contractor was paid a fixed profit for management and manufacture, plus a bonus for economy.

(5) Banking Loans.

With the continually rising prices, the increase in the stock of raw materials and half finished goods which the manufacturer had to carry, and, in many cases, the delay on the part of the Ministry in meeting its accounts, many contractors found themselves unable to finance their operations, and loans were accordingly made by the Ministry at rates of interest agreed by the Treasury (usually 1 per cent. over bank rate).

In addition to these five main groups, grants and advances were made from time to time to City Corporations, to assist them both in extending their power stations and in the erection on houses. Loans to Local Committees and Boards of Management, begun under the Armaments Output Committee, were continued and lump sums advanced to Ministry agents for the purchase of raw materials. In some cases, the Ministry, instead of, or in addition to, granting a loan secured by debentures, acquired shares in companies in which it was interested and controlled their management.

(b) GENERAL POLICY WITH REGARD TO ASSISTED CONTRACTS.

These various systems and types of contract overlapped, and it is not possible to give an exact date at which any one definitely replaced another. Mr. (later Sir Hardman) Lever, soon after his appointment as Assistant Financial Secretary, however, laid down certain definite rules for capital advances which may be said to distinguish the Ministry principles from the more experimental and tentative policy of the War Office. He insisted on the right of the Ministry to examine the books of all assisted contractors, and by an independent verification to assure itself that the money advanced had been properly expended. He insisted on a reasonable rate of interest being demanded and the loan being secured by a mortgage on the firms' property or the issue of debentures, and urged that, when possible, the loan should be repaid during the term of the contract.

As has been stated,¹ after 1 October, 1915, the penalty clause in agreements involving direct grants fell into desuetude, and indeed

¹ See above, p. 6.

grants were gradually abandoned in favour of repayable loans. The Ministry, however, inherited a number of such contracts from the War Office, and had themselves entered into a certain number before October.¹ Arrangements were therefore made to refer such cases as as they arose to an Inter-departmental Committee, consisting amongst others, of Mr. C. Lubbock (Chairman), Mr. (later Sir George) Barstow of the Treasury, and Mr. (later Sir John) Mann, representing the Ministry of Munitions, which had been set up in 1915 to deal with concessions to contractors. Some contracts included a *force majeure* clause, under which the penalty was not enforceable if the contractor could prove that his failure to obtain the agreed output was due to circumstances over which he had no control. When this was not the case, Treasury sanction, which was granted or refused by Mr. Barstow as the cases came before the "Lubbock Committee," had to be obtained. The system worked smoothly, but the fact that it was not difficult to reach agreement on the question of the conditions which had retarded output, did not prove that the attainment of output was the proper criterion by which to judge the use to which grants had been put. It might equally well prove nothing more than that the grant was unnecessary or excessive. It was for this reason that the Ministry abandoned the system.

Of the direct grants made by the Ministry after October, 1915, the majority either formed an integral part of an elaborate agreement involving repayable loans in addition to the actual grant, or were intended to cover extraordinary expenses incurred by a firm on account of the action of the Ministry. A common cause of grants for such extraordinary expenditure was the necessity of changing a contractor from the manufacture of one type of munition to another, owing to changes in the requisitions. Grants of this character may be looked upon either as a form of compensation for breach of contract, or as special assistance for extraordinary expenditure, or as a system of compounding the difference between the average cost of production plus average profit, and the exceptional initial costs of production by a firm whose factory had been organised to produce some other requirements of the Ministry.

Direct grants made for considerations other than the foregoing were as a rule limited to firms who were not simply extending their work, but were entering upon some completely new venture, such as creating a civil industry which either had not existed before the war or not on a scale in any way comparable. Thus in an agreement with Messrs. A. Kershaw & Sons, Ltd., signed on 15 June, 1916, under which the contractor undertook to manufacture prismatic binoculars, the Ministry guaranteed to advance not more than £20,000 for the erection and equipment of a factory and for working capital. Of this £20,000, "one half shall be a grant in aid of the said manufacturer, and shall not be repayable by the Company to the Minister. The remaining half shall be repaid by the Company to the Minister in instalments of not less than £1,000."²

¹ e.g. Contracts/S/7775.

² C.R.4600.

In addition to direct grants to contractors, the Ministry rendered assistance, under protest from the Treasury, to local authorities for the construction of houses. A scheme was drawn up in October, 1915, under which the Ministry undertook to bear part of the difference between the current and the pre-war cost of building, on the grounds that the great demand for housing accommodation in certain industrial centres was due to the Government's requirement of munitions.¹ The percentages contributed varied from 13½ per cent. to the Lanarkshire County Council to 25 per cent. to the Dudley Corporation. The Ministry committed itself before Treasury sanction had been obtained, and, although covering sanction was finally given in November, the Treasury pointed out with good reason that the local authorities had no vested interest in pre-war prices.² It was, no doubt, too early at that date to anticipate the shortage of houses from which almost all areas in the country suffered after the war, but it was not too early to foresee that prices were not likely to fall at least during the continuance of the war, or that such towns as Sheffield, Coventry and Dudley, would be better able to bear exceptional costs than was the country as a whole.³

An interesting example of the transition from the War Office system of advances to that finally adopted by the Ministry is afforded by the contracts entered into with the Birmingham Small Arms Company, Ltd. According to the terms of the first agreement, dated 2 April, 1915, the War Office undertook to pay £150,000 towards extensions of works and plant required for the manufacture of rifles. £75,000 was to be paid on the contractor's certificate that such a sum had been 'duly expended on the plant and buildings. £37,500 was to be paid on 1 July, and a further £37,500 on 24 July, if the contractor had by that time reached an output capacity of 8,000 rifles a week. Had he failed, this last £37,500 was to be reduced proportionately. The contractor was to allow a rebate in price on every rifle ordered and delivered in excess of 350,000, but the total of such rebate was not to exceed £75,000. The second agreement, the terms of which were influenced by the fact that the War Office had induced the firm to make still further extensions on the promise of additional capital assistance, was dated 4 February, 1916. Its importance here lies in the points at which it differed from the earlier contract. By this date, the firm had actually made the extensions for which the new loan was advanced, so that the production of vouchers preceded the signing of the contract, the Ministry having received on 3 February, an auditor's certificate that the expenditure to that date exceeded the proposed sum, which amounted in all to £350,000, of which £150,000 had already been paid. The whole of this sum was to be refunded to the Ministry by deductions of £35 per machine gun on a total contract of 10,000, arrangements having been made for the extensions to be used for the manufacture of machine guns instead of rifles. In addition, under clause 8 of the agreement, the Minister was to be "entitled to a charge upon all buildings, plant and machinery, erected or purchased by the Birmingham Small Arms Company, and being part of the said extensions,

¹ C.R. 2913; L.R. 1153/13; L.R. 11636/12.

² C.R.V./Gen/361.

³ See also Vol. V., Part V., p. 7.

for the purpose of securing the said sum advanced by him, and upon due completion of the said order the said charge shall cease and thereupon the buildings, plant and machinery shall be the sole property of the Birmingham Small Arms Company."

The essential characteristic of the typical Ministry assisted contracts, when the property was not retained, was provision for (a) payment of interest ; (b) regular amortisation ; (c) the security of the loan and (d) the inclusion of a clause under which the Ministry obtained the right of inspecting the company's books. It will be observed that in this transitional agreement, determined as it was by the previous negotiations entered into by the War Office, the right to interest was forgone, and an auditor's certificate was accepted in lieu of formal investigation of accounts. On the other hand, a floating claim on the extensions made was secured, and repayment in full during the period of the contract demanded.¹ In the case of loans to the largest munition manufacturers, however, the Ministry did not as a rule demand any definite security for the advances it made.

(c) ADVANCES WITH PROPERTY RETAINED BY THE MINISTER.

Property rights in the buildings and plant erected with capital advanced by the Government were retained by the Ministry as a rule, not because the Ministry desired their possession, but because the contractor could not be induced to take over the additional buildings at an agreed price or percentage of the cost. It was a question of bargaining rather than of principle. When the new works were likely to prove of permanent and real value to the contractor it might pay him, and it would almost certainly pay the Ministry best, for a temporary loan to be made, repayable, as Mr. Lever laid down, if possible, during the currency of the original contract. But, as extensions grew and the danger of redundancy after the war became greater, firms became less willing to increase their fixed capital, even when the terms of the loan and the conditions of repayment were favourable. In these circumstances, the Ministry was compelled in a number of cases to bear the whole cost of the extensions and keep possession of them. When the purchase of land was involved, the contractor as a rule effected the purchase himself and handed over the title deeds to the Minister. Thus, in an agreement signed by Messrs. White and Poppé on 21 October, 1916, the firm was to purchase twenty-two acres of land and erect thereon two new factories. On the completion of the purchase of the land "the contractors shall procure the same to be conveyed to the Minister."² The Minister, who retained this property, including the works and their fittings, agreed to advance :—

for the 22 acres	£	6,050
„ fees and tenants' compensation	300	
„ buildings	60,000	
„ machinery	127,500	
	<hr/>	
	£193,850	

¹ 94/R/223.

² 94/F/656.

During the continuance of the agreement, the contractor was to use the new factories for the production of fuses, and was under an obligation to insure them and keep them in good repair. The price of the fuses manufactured was fixed, of course, at a level which excluded interest on the fixed capital involved.

(d) CO-OPERATIVE AND PROFIT-SHARING CONTRACTS.

The term "profit-sharing contracts" was used in the Ministry with somewhat different meanings. According to the narrowest definition, it only applied to those contracts under which a "standard price" was fixed somewhat in excess of what was considered a fair price, it being arranged that any difference between the price and the ascertained cost of production (being lower than the standard price) should be shared between the contractor and the Ministry. Contracts of this type were only adopted in exceptional cases, mainly for new supplies, when the agreement of a fixed price was difficult. But there were in addition a number of systems under which the final price remained indeterminate, and the Ministry and the contractor shared in the profit or loss between a fixed price and actual cost. The characteristics of such contracts, when capital advances were involved, were the following. When the buildings, plant and machinery erected with Government money remained Government property, the contractor confined their use to Government orders, and received for remuneration the cost of production plus a sum, which, while a percentage on output, varied per unit in inverse ratio to the cost of production. The plant was written down at the rate of 33·5 per cent. per annum, and buildings at 10 per cent. per annum. The contractor was given an option to purchase during the first six months succeeding the termination of the war. The Minister supplied, as a rule, part or all of the raw material.

This system was applied almost exclusively to contracts for shell and forgings, and was generally adopted in the Glasgow shell schemes. Thus, by an agreement dated 16 May, 1916, entered into with the North British Locomotive Company, the Ministry undertook to advance a sum which was not to exceed £200,000 for extensions. All purchases of plant were to be approved by the Ministry and the plant and machinery were to remain Ministry property and be kept for Ministry purposes for the duration of the war and six months thereafter. During the half year succeeding the termination of the war, the firm was to have an option to purchase. The contract was for 90,000 8-in. shell, and a standard price of £5 per shell was fixed. At the end of the contract "the total net cost of the shell shall be ascertained and the contractor shall repay to the Minister a sum equal to one-half of the difference between the said total cost ascertained and the aggregate cost of the shell delivered at the standard price; but if the said total net cost of the shell shall exceed the aggregate cost (at the standard price) the Minister shall not be liable to make any further payments."¹

¹ 94/Glasgow/20.

This clause constituted a form of sliding scale under which both the Government and the contractor benefited by a reduction in the cost of production. It was the object of the contractor, of course, to make the "standard price" as high as possible. This particular agreement involved some difficulty before terms acceptable to both parties were finally reached, and the North British Locomotive Company succeeded in extracting a guarantee from the Government considerably weakening the force of the clause quoted above, which, however, fortunately did not become general. Under this guarantee, "if the contractors shall incur any loss in the manufacture of the said shell, the Minister shall relieve the contractors thereof, provided such loss after careful investigation is proved to arise not from any waste, neglect or bad management on the part of the contractors, but is entirely due to causes beyond their control."¹ While both parties shared in the profits, the Ministry alone shouldered the risk. This form of contract continued in force, after its first adoption early in 1916, during the whole period of the war, although there were numerous different methods of arriving at the share of profits to be retained by the contractor and the Government respectively.

In an agreement signed by the Standard Engineering Company on 26 July, 1915, a sliding scale of a different character from that quoted above was arranged. The firm, which was manufacturing 4·5 in. H.E. shells and was to receive not more than £3,407 13s. 7d. for extending its works, was to be paid the net cost of production, but not more than £2 2s. 6d. per shell; and, in addition, a bonus. The bonus was calculated as follows:—

- (a) If the cost of production was less than £2 2s. 6d., but not less than £2 1s. 9d., the contractor was to receive the difference between the cost of production and £2 2s. 6d.
- (b) If the cost of production was less than £2 1s. 9d., but not less than £1 19s. 0d., he was to receive 9d.
- (c) If the cost of production was less than £1 19s. 0d., he was to receive 9d., plus one-fourth of the difference between the cost of production and £1 19s. 0d.

Thus, under (a), the contractor must receive less than 9d. and the Government nothing, under (b) the contractor must receive 9d. and the Government might gain, as compared with the standard price, any sum between nil and 2s. 9d., under (c) the contractor must receive more than 9d. and the Government must gain 2s. 9d. or more. This particular contract was peculiar in one respect, in that it allowed the contractor to include in his cost of production the "amount of the interest on the overdraft (if any) on the contractors' separate banking account opened by them in connection with carrying out the work." It was a definite principle in the Ministry that interest on loans provided by them should be excluded from the costs of production, and, when such loans were made it was obviously necessary to exclude interest on bank overdrafts in order to prevent the contractor from using such overdrafts simply for the purpose of securing interest on the loan.

¹ 94/Glasgow/20.

There was, during 1918, a certain reaction in the Ministry against profit-sharing contracts on the grounds that they involved an amount of labour in costings greater than, with the difficulty of obtaining trained accountants, it was easy to afford, and, on 25 August, it was proposed to change the contract with the Standard Engineering Company into a flat rate price, the company to pay a rental of 10 per cent. of the original total value of the buildings and 33·3 per cent. of the total original value of the plant. This rent was to be paid by deductions from the price of the shell.

In June of the same year, the Contracts Board considered the whole question of the principle underlying these contracts. Their conclusions were that, though they were of great value in the case of new and novel requirements and whenever it was difficult to induce contractors to accept contracts at fixed terms, they should be cut down as much as possible in order to save the work involved in cost investigations, and, when they were adopted, the sliding scale should be introduced. It should be remembered that the scarcity of trained accountants was throughout the war one of the most serious difficulties which the Ministry had to face. Had it not been for this difficulty, there would have almost certainly been a clear advantage in adopting the profit-sharing system in the majority of cases where the Ministry maintained proprietorship of buildings erected amidst the contractor's works, for, as Mr. (later Sir Sigmund) Dannreuther pointed out in a letter to the Treasury in May, 1918, the value of such buildings to the Government if they were removed "would be negligible."¹ The contractor had an option to purchase—he was rarely under obligation to do so. His bargaining position after the war was accordingly extraordinarily strong. In these circumstances, it was necessary for the Government to write off as much as possible of the cost of the buildings from the economy in the price of the goods before the war ended.

One objection to the form of contract illustrated above by the agreement with the North British Locomotive Company was that the Ministry, in some cases, met with considerable difficulty in getting back that portion of the difference between the fixed maximum standard price and the cost of production, which was due to it. Moreover, even when repayment by the contractor was prompt, the Government was losing interest on its money.

(e) ADVANCES AND BANKING LOANS.

Certain contracts for shell, made in 1915 by the War Office, contained a clause to the following effect:—

"The Secretary of State may, at his discretion, pay immediately on delivery up to 80 per cent. of the value of any shell delivered, provided that in the opinion of the Secretary of State, the shell are likely to pass inspection."

This system of payment was introduced on account of the great delays in payment which occurred in 1915 owing to the overtaking of both the finance and the inspection staff. It did not, in point of fact, constitute

¹ HIST. REC./R/1122/19.

an assisted contract in the proper meaning of that term, although, as has been pointed out above, these payments on account were confused with advances. The Ministry of Munitions continued the practice of such payments, and, although in July, 1916, the Finance Department suggested that this condition should be done away with so far as possible, the difficulty of fixing a final price at once in all cases, and delays in inspection made its total abandonment impossible. It was proposed that such terms should be included only in exceptional circumstances, and then with a covering clause to the effect that unless 90 per cent. of the goods were subsequently found to be passing inspection, payments of 80 per cent. on delivery could not be continued, and that all such payments should be subject to a guarantee to refund in the event of goods failing to pass inspection.

In practice, however, it proved impossible to adhere to rules of this character. Such payments on account were supposed only to be made, in any case, against actual deliveries supported by proper evidence. But, in fact, the Accounts Department had often to make advances without such evidence.

In a minute to the Assistant Financial Secretary, dated 2 March 1917, Mr. Judd, Assistant Director of Accounts, raised the question formally.

"Within the last week we have had," he wrote, "requests for advances from Messrs. Armstrong Whitworth, of £500,000, from Messrs. Vickers of £400,000 and from Messrs. Kynoch of £1,000,000, all of whom have given us very vague information from which to work, none of them substantiating their claims by anything approaching intelligible statements, or of the contract under which they suggest that the advance should be made. . . . We are often pressed, sometimes by telephone and sometimes by telegram, for an advance, failing the immediate receipt of which, the contractor will be obliged to close down his works and is unable to pay his wages. We are at once brought face to face with conflicting interests, first, the natural one of maintaining output and secondly the financial one of maintaining security. Consequently, advances are now largely made on experiences of the contractor's account and unsupported by satisfactory tangible evidence, and to a great extent influenced by the necessity of the case."

It was obviously difficult, in these circumstances, to distinguish between such advances and banking loans proper, and still more difficult to distinguish between them and what were known as "standing advances." These latter were, in effect, advances against deliveries which, on the assumption that the average value of deliveries made and not paid for remained approximately unchanged, had been left outstanding. Likewise, on the assumption that they were in theory payments on account, no interest was charged. The number of contractors to whom such standing advances were made was not great, but a considerable amount of capital was involved.

Mr. Guy and Mr. (later Sir Gilbert) Garnsey reported the amounts in July 1918, as follows :—

Messrs. Vickers, Ltd.	..	..	..	..	£ 3,250,000
Messrs. Armstrong Whitworth	..	..	..	..	1,650,000
Messrs. Kynoch, Ltd.	..	..	..	..	1,515,000
King's Norton Metal Company	..	..	..	..	410,000
Birmingham Metal and Munitions Company	..	..	..	..	370,000
Coventry Ordnance Works..	..	..	..	..	250,000
Messrs. Greenwood & Batley	..	..	..	..	230,000
Nobel's Explosives Company	..	..	..	..	120,000
Birmingham Small Arms Company	..	..	..	..	100,000
Messrs. Barr & Stroud	..	..	..	..	12,500
Chilworth Powder Company	..	..	..	..	6,000
					<hr/>
					£7,913,500

At an earlier date, they had reported that they experienced considerable difficulty in ascertaining the amount of these advances, as, in several cases, they had been charged to contracts accounts and recovered by deductions from bills, and, in other cases, " they had never been carried forward from the old War Office Ledgers."¹

The relative amount of capital involved in these two forms of non-interest bearing advances or payments on account, compared with capital advances properly so called, may be seen from the following statement of balances on 31 July, 1918 :—

Cash advances against deliveries	..	..	..	..	£ 37,911,123
Standing advances	..	..	..	..	7,913,500
Loans and interest	..	..	..	..	27,246,222
Materials for cash	..	..	..	..	16,419,669
Materials <i>per contra</i>	..	..	..	..	15,573,496
					<hr/>
					£105,064,010

Banking loans differed from advances on account and standing advances in as much as they were both made irrespective of deliveries, and bore a rate of interest. They were necessitated by the same immediate cause, the need of the contractors for working capital. But that need might and did arise from causes other than lack of promptitude on the part of the Ministry in paying bills. It arose from the fact that, with increased production and rising prices, the contractor had to carry a heavier stock at a higher cost per unit. At the same time, wages were rising and more shifts being worked. When, in addition to this, the contractor enlarged his works, even when the Government advanced the capital for buildings and plant, a fresh need for working capital would arise for which he could not always obtain accommodation from the banks. It was in such circumstances

¹ Reports of Accounts Department for November and December 1917. (Hist. Rec./R/450/17).

that the Ministry of Munitions made what were known as banking loans, generally bearing interest at 1 per cent. above bank rate with a minimum of 5 per cent.

Thus, in a contract entered into with the Gramophone Company, Ltd., on 22 December, 1916, the Ministry agreed to "advance to the Company such sums as the Company may from time to time require for the purpose of buying metal in the U.S.A. for the performance by the Company of the agreement." The advances were to be made in three instalments, the first on the signing of the agreement, the second after the lapse of five months, the third after the lapse of a further five months. Repayment was to be made by deductions of 60 per cent. from the bills, and interest was fixed at 1 per cent. above bank rate with a minimum of 5 per cent.¹

In some cases, however, though the practice was not common, loans for the purchase of raw material were made free of interest. In the agreement already referred to with Messrs. White & Poppé for instance, dated 21 November, 1915, under which the contractor was to manufacture 50,000 fuses, the Ministry, in addition to putting up nearly £200,000 for land, buildings and plant of which they kept possession, advanced £100,000 free of interest for the purchase of raw material. The principal was to be repaid by deduction from the firm's bills and the price of the finished article was fixed at 13s. 9d. "in consideration of advances free of interest."²

(f) POST MUNITIONS OF WAR ACT LOANS.

After the Munitions of War Act came into force in July, 1915, assistance was given to contractors largely by means of remitting part of the tax due, in consideration for capital expenditure incurred by them with the object of increasing munitions output. The various applications of this general principle are discussed in the next chapter. When, at the end of 1917, the excess profits duty took the place of the munitions levy, it became necessary to some extent to revert to direct advances. These advances were made, however, on the condition that the firm applied for an allowance for excess profits duty which should not be less than the Minister's contribution. A common form of letter was drawn up and, whenever the assistance which could be rendered in this manner was sufficient to induce the firm to proceed with the proposed extensions, this letter took the place of the formal agreements signed by both parties used in the case of other forms of advances. The amount of the Ministry's contribution under these letters varied. As a rule, it did not exceed 33·3 per cent. on buildings and 40 per cent. on plant; but in special circumstances it was as much as 75 per cent., or even more, of the total expenditure on the whole undertaking. The vital paragraphs of these letters read as follows:—

"§ 3. The Minister will on the satisfactory completion of the extensions, make a contribution towards the capital cost thereof, and to cover ordinary depreciation of the extensions, for

¹ 94/C/2899.

² 94/F/656.

the first 12 months after the same first came into use, equal to per cent. on the approved cost of the buildings and per cent. on the approved cost of the plant and machinery, but the Minister will make no contribution in respect of any land used for the extension.

"§ 4. The contribution of the Minister will be made upon the express condition that you undertake that, upon making the first return for assessment to Excess Profits Duty, upon which such claim can properly be made, you will in respect of the said extension prefer a claim to the Commissioners of Inland Revenue under Section 40 (5) of the Finance (No. 2) Act, 1915, for such modification of the provision of the Fourth schedule of the said Act as will entitle you to an allowance or allowances of not less than the amount of the Minister's said contribution and you will also prefer a claim to the said Commissioners for a proper allowance for ordinary depreciation in respect of the first year's use thereof, and will give to the Commissioners all such information as they may reasonably require in dealing with such claims.

"§ 5. Should either or both of such claims or any part thereof be allowed, you undertake to pay to the Minister within two months after the profits of any accounting period have been ascertained :—

- (a) The full amount by which such profits shall have been reduced by the deduction therefrom of the said allowances until the aggregate of the amounts so paid is equal to the contribution referred to in clause 3 above and thereafter ;
- (b) 80 per cent. (or such other per cent. as may from time to time be the rate of Excess Profits Duty in force) of the amount by which the total of such allowances exceeds the amount of the said contribution."

If the contractor failed to carry out his obligations under these clauses, the contribution of the Minister became a loan at 1 per cent. above bank rate with a minimum of 5 per cent., repayable on demand.

Although this manner of making advances became the general practice during 1918, exceptions to the rule in special cases were unavoidable. It postulated that the firm was prepared to take at least a proportion of the risk, that the new buildings and plant were likely to be of use to it after the war, and that profits would be earned sufficient to make an appreciable obligation under the excess profits duty probable.

These conditions did not obtain in all cases. On the other hand, there was a general slackening off of capital contributions during 1918, due in part to the reinstitution of Treasury control in October, 1917, in part to the growth of national factories, and in part to the volume of assistance granted during the earlier years of the war. Such advances as were allowed were made on the general terms which have been considered above. But there was a tendency for the agreements to be more elaborate, and, in some cases, special provisions were introduced. When

the property in the extensions made was to remain the property of the contractor, it was the practice of the Ministry to obtain debentures either as a mortgage on that property or as a floating claim on the whole company's assets. The real value of these debentures was, in cases when the cost of the extensions constituted a high percentage of the total assets of the company, often dubious and tended naturally to become smaller as the probability of an early termination of the war increased. In an agreement entered into with the British Cellulose and Chemical Company, Ltd., dated 27 May, 1918, the Ministry inserted special clauses in this connection. The Minister agreed to advance 33·3 per cent. of the company's approved war capital expenditure on buildings, down to 31 December, 1918, 60 per cent of its similar expenditure on plant down to 31 December, 1917, and 50 per cent. of its expenditure on plant during the year 1918. The loan was to bear interest at 1 per cent. above bank rate with a minimum of 5 per cent. and was secured by debenture, and repayable on or before 27 May, 1923. The company was not, while any portion of the loan was outstanding, to issue any further debentures without the consent of the Ministry. It was further provided that "if the Company issues any security or any of its share capital for cash, the loans made by the Minister shall be *pro tanto* repaid out of the proceeds of the issue."

During the whole period of its history the Ministry of Munitions was in a state of transition, development and change. At no date was its policy fixed, its organisation definite. The most radical change in its financial organisation was introduced at the time of the Armistice, and was still-born. At no date was one method of granting financial assistance to contractors wholly abandoned for another, with the exception of that system which was dependent on the existence of the Munitions of War Act for its own existence. Similarly, no one system was necessarily applied to one firm. The balances outstanding with the Associated Equipment Company, Ltd., on 31 March, 1918, illustrate the heterogeneity which was possible.

Balances outstanding on 31 March, 1918 :—

To materials	£	18,973
Loans for working capital at interest.. ..	500,000	
Loans for buildings and plant at interest	71,578	
Government buildings and plant	24,477	
	<hr/>	
	615,028	
In addition, grants had been made to the value of ..	2,250	
	<hr/>	
	£617,278	

IV. Loans to Corporations.

The growth of national factories and the continuous work of existing companies with their extended plant led, early in the history of the Ministry, to demands from City Corporations for assistance in increasing the supply of electric power. The negotiations of the Ministry with these Corporations, in 1915, are of interest as illustrating the value

of Treasury control, and the danger which the exceptional powers of the Ministry to ration the capital of the nation involved. Coventry and Sheffield were two of the earliest applicants for help from the Ministry, and the latter drew up with the Local Government Board draft agreements to be made with the local authorities and forwarded them to the Treasury. The Treasury at once replied that, according to the terms of the agreements, it was proposed to advance money at $4\frac{1}{2}$ per cent., whereas the Treasury itself was borrowing at the moment at a higher rate. "To lend money at $4\frac{1}{2}$ per cent. to Sheffield and Coventry is, therefore, practically to give a subsidy to these Corporations." The negotiations had, however, gone too far before reference was made to the Treasury for the conditions to be changed, and the subsidy remained. But on other points the Treasury gained its way.

According to the agreement as drafted, the Ministry was (a) to make a grant to the Sheffield Corporation "for the extra cost due to the expedition of the work"—this extra cost to be measured by the amount of overtime worked, and (b) to grant a loan at $4\frac{1}{2}$ per cent., the principal to be repaid by annuities, according to the usual practice with similar loans made by the Local Government Board. The Ministry at the same time retained to itself the alternative right after notice to remove the plant or require the Corporation to purchase it, and the Corporation reciprocally obtained the right, after the end of the war, to force the Ministry, should it wish, to exercise this option. In the event of the Ministry forcing the Corporation to purchase, however, "no loss shall accrue to the Corporation in respect of the provisional installation or working of the said machinery, plant, mains and cables." The Treasury pointed out that, as Sheffield was presumably benefiting greatly from the large contracts placed there which necessitated the additional power, "it might well have been content to bear itself some portion of the loss which may arise." They insisted, therefore, that the amount of the grant should be limited to a fixed maximum figure and that the clause, under which the Corporation should be guaranteed against all possible loss, should be deleted. The agreement was modified accordingly, Sheffield obtaining a promise of £7,500 should the cost of "expedition" amount thereto.¹

The Treasury was further successful in having the rate of interest on subsequent loans raised, and when in December, Coventry applied for an additional advance, $4\frac{3}{4}$ per cent. was demanded. On 30 December, 1915, the Treasury decided that even this rate was too low and that in future all loans should be raised to 5 per cent. "as an absolute minimum rate of interest." It is not clear why 5 per cent. and not $5\frac{1}{2}$ per cent. was taken as the minimum, for, as the Treasury itself pointed out, the Government were then selling Treasury Bills at 5 per cent. discount which is equivalent to interest at £5 5s. 3d. per centum. In point of fact, this ruling was not immediately enforced, the Ministry signing an agreement with the Birmingham Corporation on 24 February, 1916, under which they undertook to make an advance at $4\frac{3}{4}$ per cent. The Birmingham agreement was very different from that entered into with Sheffield, and more representative of the

¹ HIST. REC./R/1380/3; M.W. 43263.

practice generally adopted. There was no grant for expedition; the Ministry reserved the right to pass or reject any tender for plant received by the Corporation; the Corporation undertook to keep exact records of the profits earned by the new plant. Moreover, the following clause framed to cover the contingency of the new plant becoming redundant was obviously a better bargain to the Ministry than the corresponding stipulations made with Sheffield.

"If during the period of the loan the Corporation are of opinion that the said plant or any portion thereof is in excess of what is properly required for the efficient supply of the Corporation's Electric Lighting Area . . . the Ministry shall either

- (a) Take over the said plant or the excess portion thereof at the amount of the debt then properly outstanding, less any net profit . . . earned by the said plant . . . but with the addition of the cost of transferring any portion retained by the Corporation to the said permanent station, or
- (b) Write off so much of the debt then properly outstanding as will, after deducting any net profit . . . and adding the cost of transferring the portion retained . . . prevent any loss to the Corporation in respect of the said plant."¹

V. Capital Advances.

It was not until after the establishment of the Internal Audit Section in April, 1917, that any attempt was made to prepare balance sheets of the financial activities of the Ministry which made any real distinction between payments and capital advances, and it was not until twelve months later that even an approximate statement covering the whole financial activities could be drawn up, although earlier preliminary drafts, characterised by serious lacunae, owing to insufficient information, had been submitted.² It is not, therefore, possible to trace year by year, with any nice degree of exactitude, the relative amounts that were advanced in one form or another for the various wartime requirements of the State. The original estimate for capital expenditure of all firms for the year 1916-17, submitted to the Treasury on 27 January, 1916, was £10,000,000,³ which was raised on 30 October to £22,000,000,⁴ the main causes of this increase being the additional expenditure on explosives and propellant factories and the erection of new factories for small arms ammunition. During the course of this year, there had been a great increase in the original tank programme, the demand for trench warfare supplies had more than doubled, and that for machine guns quadrupled. The actual sum included in the final balance sheet for that year, on account of recoverable advances to contractors and banking loans, amounted to £4,482,622.

¹ M.F./Advances/499.

² See below, p. 21.

³ 15/Munitions/376.

⁴ C.R.V./Gen./095.

In January, 1918, Mr. Garnsey and Mr. Guy submitted a memorandum to the Assistant Secretary on the form of Public Accounts, for the information of the Committee of the House of Commons then sitting to discuss that question. They pointed out, in connection with the distinction between capital and cash expenditure, that the official balance sheet did

“ not represent the actual payments for the financial year, because cash advances to contractors are only included to the extent to which deliveries have been made before the end of the financial year and evidenced within the year or the six months subsequent thereto. . . . Again, a large number of payments included in this account, are advances in the nature of Banking Loans, or on account of capital expenditure (either or both of which may be repayable in cash) or for material which is sold to another contractor and paid for by him. . . . No statement is drawn up to show the financial position of the Ministry at any given date, and in fact, no assets are shown on the official books, except certain repayable advances, but certain other assets are shown on the Contract Ledgers and Factory records merely as memoranda.”¹

It is, therefore, necessary to turn to the periodical balance sheets prepared by Mr. Guy and Mr. Garnsey themselves, and not to the published statements in order to ascertain the relative importance of the various capital commitments.

The position on the first day of April, 1918, was as follows²:—

<i>Fixed Assets.</i>				£	£
Capital expenditure at:—					
(1)	National Factories	..	..	..	62,294,990
(2)	Royal Ordnance Factories	..	..	..	5,000,000
(3)	Contractors' Works	..	..	..	13,099,613
(4)	Storehouses and Bonds	..	..	..	1,647,474
(5)	Inspection and Experimental Depots	..	..	..	78,085
(7)	Filling Stations	..	..	..	450,206
(8)	Training Schools	..	..	..	113,984
(9)	Railway Sidings	..	..	..	865,377
(10)	Housing Schemes	..	..	..	2,690,892
(11)	Prisoners of War Camps	..	..	..	105,196
(12)	Miscellaneous	..	..	..	943,489
					87,289,306
<i>Floating Assets.</i>					
Stocks and Stores on hand				..	277,126,841
					277,126,841
Debts due to the Ministry:—					
(1)	From Contractors for materials.				
(a)	On Repayment	..	..	..	15,315,812
(b)	Per contra	..	..	..	21,930,206
					37,246,018
(2)	From Contractors for cash.				
(a)	On Loan	..	..	..	23,236,672
(b)	Accrued Interest	..	..	..	15,363
					23,252,035

¹ HIST. REC./R/450/17.

² M.C. 890.

(3) From Contractors for standing and other advances	7,911,963	
		7,911,963
(4) From other Government Departments and Allies	32,451,557	
		32,451,557
Cash balances, etc.	28,210,437	
		28,210,437
TOTAL (say)		493,488,100

The gross figure for fixed assets at contractors' works was just over £13,000,000. Of this total, grants in aid towards contractors' expenditure on extensions, the property being vested in the contractor but at the disposal of the Minister for the duration of war, amounted to 2,310,185

And government buildings and plant in use by contractors either free or subject to rental, to 11,585,505

Of the loans, about 75 per cent. were accounted for by the Accounts Branch (D.M.A.6.), and, of this 75 per cent., £16,748,660 bore interest, and £826,904 or less than 5 per cent. were free of interest. About £5,000,000 were advanced to aircraft firms. In addition to these advances, however, which with the standing advances amounted, as will be seen, to just over £31,000,000, the outstanding grants on the books of D.M.A.6., already charged to the Ministry of Munitions Vote amounted, at the end of January, 1918, to some £13,000,000.

As has been stated in the foregoing section, there was no great increase in loans outstanding during 1918, and the total volume of advances was very considerably lower than during the preceding year. The monthly movement from March to September, was as follows :—

	<i>Advances.</i>	<i>Reductions.</i>
	£	£
31 March — 24 April ..	3,900,000	600,000
25 April — 29 May ..	1,000,000	1,700,000
30 May — 26 June ..	1,700,000	1,800,000
27 June — 30 July ..	2,500,000	1,200,000
31 July — 28 August ..	1,100,000	800,000
29 August — 30 September ..	2,200,000	3,500,000
	<u>12,400,000</u>	<u>9,600,000</u>

The total increase of loans outstanding during the first six months of this financial year was thus just under £3,000,000, and the monthly average of advances made just over £2,000,000.

At the end of June, the contractors holding the largest loans exclusive of standing advances were the following :—

Messrs. Armstrong Whitworth	£ 5,303,000
Messrs. Vickers, Ltd.	5,420,000
Messrs. D. Colville & Sons, Ltd.	1,376,000
Messrs. Beardmore & Co., Ltd.	1,273,000
Associated Equipment Company, Ltd.	571,000
Redbourne Hill Iron & Coal Company	560,000
Messrs. Dorman Long & Co.	459,000
British Cellulose and Chemical Manufacturers	285,000
City of Birmingham	261,000
National Smelting Company	255,000
Birmingham Metal and Munitions Company	250,000
Ebbw Vale Steel & Iron Company	250,000
Partington Iron & Steel Company	239,000
Sheffield Corporation	215,000

There were, in addition, ten firms with advances outstanding, varying from £100,000 to £200,000. The total of loans and interest due to the Ministry at this date was roughly £26,000,000, and the total due from these 24 firms, slightly over £18,000,000, or rather over two-thirds of the whole. If to these loans be added standing advances, the percentage of the total capital credits of the Ministry for which these relatively few firms and Corporations were responsible is appreciably raised.

VI. Representation of the Ministry on the Boards of Contracting Firms.

In the case of certain assisted contracts, the Ministry possessed the right of exercising some control over the companies through a representative. These rights were not exercised under the Munitions of War Act, 1915, but rested upon the special contracts with the firms concerned. The various cases were reviewed by the Financial Advisory Committee under the following reference which was made to the committee on 20 April, 1918 :—

“ To ascertain the relations of the Ministry with the Companies mentioned in P.M./Gen./1473,¹ upon the Boards of which the Ministry is represented, and to report whether the continued representation on the Boards is necessary or desirable and whether any changes should be made in the representation. Consideration should be given to the financial position of each Company, and the Ministry's interest therein and the benefit, if any, derived by the Ministry from its control in the contract prices obtained, and to advise generally.”

The committee reported on 29 May, 1918, that the principle of appointing representatives or directors had not been generally applied to

¹ *i.e.*, the firms named in the committee's report.

contracting firms receiving government assistance, but was limited to the following exceptional cases, where abnormal technical difficulties existed :—

Messrs. T. Chatwin, Ltd.

Messrs. Pitters Engineering and Ventilating Company (Woolwich National Gauge Factory).

Messrs. Ferranti, Ltd.

Standard Small Arms Company.

British Potash Company.

Messrs. Chance, Bros.

Messrs. John Moncrieff, Ltd.

Derby Crown Glass Company.

Messrs. Wood Bros., Glass Company.

Messrs. Kershaw & Son, Ltd.

Messrs. A. C. Cosser, Ltd.

Messrs. Duroglass, Ltd.

Messrs. Brimfield, Ltd.

Messrs. Aston & Mander, Ltd.

Periscopic Prism Company.

The control was exercised in five different ways, though in all cases money grants, loans, or other assistance had been afforded by the Ministry.

(a) A GOVERNMENT REPRESENTATIVE.

There were a number of agreements, mainly with optical glass firms, under which the Ministry obtained the right to appoint a government representative with the object of protecting its interests. Under these agreements, the government representative was not a member of the Board, did not hold shares as a director would have to have done under the Memoranda and Articles of Association and received no remuneration from the company. In consideration of financial assistance afforded, the company accepted the appointment of such a representative and undertook to allow him access to all books and records, and to abide by his decision on all matters requiring a decision under the terms of the agreement. As a general rule, the Ministry obtained in this way very extensive powers indeed. Under the agreement with Messrs. Chance Brothers and Company, Ltd., signed on 14 January, 1916, the government representative had power

- (a) to prohibit the export of optical glass produced by the firm ;
- (b) to vary the price of the glass above or below a fixed standard according to variations in the cost of production ;
- (c) to determine the varieties and stocks of glass to be manufactured and maintained ;
- (d) to investigate all books and records.

The position of the optical glass industry was, of course, exceptional, and the Government had three distinct objects in view. It wished to obtain supplies ; it wished to build up this new and essential industry (it was classified as a " key industry ") in the United Kingdom ; it wished to avoid the formation of a ring.

The Financial Advisory Committee reported favourably on the system adopted under this class of contract. "It seems to us," they said, "that the powers exercised by the Government representative, having regard to the special conditions of war time, are wise powers to confer and if properly exercised, are a genuine protection to the Ministry." They were less convinced about the wisdom of the second system.

(b) A GOVERNMENT REPRESENTATIVE AND DIRECTOR.

There were several cases where, under the terms of agreement, the Government obtained the right to appoint an ordinary director on the Board, in addition to a government representative. The object, apparently, was to secure a fuller knowledge of the whole transactions of the business. The Financial Advisory Committee reported that they were not satisfied

"that the disadvantages attached to occupation, by a government official, of the position of a director is counterbalanced by the advantages. It places the official in a fiduciary capacity towards the shareholders in which his duty as representing the State may conflict with his duty to the Company. . . . In ordinary circumstances the presence of a Government Director on the Board gives the Company's creditors and shareholders a feeling of security in dealing with the Company which the appointment was certainly not intended to convey. It also gives the Company a prestige which in ordinary trading times, would give it an unfair advantage over its competitors."

In addition to these objections all evidence went to show that the government representatives who had no place on the Board found themselves in a very much stronger position than when they had to act in a dual capacity, and the majority of the agreements under which government representatives were appointed were so carefully drawn up that additional powers were not necessary.

(c) A GOVERNMENT REPRESENTATIVE AND A DIRECTOR OR
CHAIRMAN WITH SPECIAL POWERS.

In one case, that of Messrs. Pitters Engineering and Ventilating Company (later called the Woolwich National Gauge Factory), the chairman appointed by the Ministry was to have a veto in all matters which he considered prejudicial to the continuance of the full output. In another case, the British Potash Company, the veto was absolute.

The contract with the British Potash Company was exceptional, the Ministry practically constituting a new company and advancing money, not against a mortgage or debenture security, but against, on the one hand, an allotment of ordinary shares, and, on the other, a lien on the profits of the company. The original nominal share capital of 50,000 £1 shares, of which 25,000 were allotted, was to be raised to £100,000, of which the Ministry took half. In addition, the Government advanced £200,000 for constructional purposes at 1 per cent. above bank rate, with a minimum of 5 per cent., with the

right to first charge debentures if required. The interest on the ordinary and government shares was to be limited to 6 per cent. per annum until the company had built up a reserve fund of £100,000 and repaid all advances made by the Ministry. In addition to the government representative, who was *ex officio* a member of the Board, the Ministry had the right, which it did not exercise in practice, of appointing two other directors. This experiment, and it was not unique, is of interest because it was an attempt to capitalise production in such a way as to avoid some of the gravest dangers, apart from waste, which the alternative measures of loans against debentures or the erection of national factories presented. As has already been pointed out, advances against debentures were liable to weaken seriously the position of other debenture holders and preference shareholders, unless, which was not always the case, the company was able from its immediate profits to clear off the debt and write down the value of the buildings to a sufficiently low figure. On the other hand, these advances to independent firms constituted a risk to the Government, the extent of which, other things being equal, was in direct proportion to the ratio of the amount of the advance to the probable liquidation value of the property of the company. One of the main difficulties with national factories was their disposal after the war. The contract with the British Potash Company to a certain extent, obviated all these difficulties. The initial balance sheet showed, no doubt, a disproportionate quantity of debentures, but not so disproportionate as would have been the case had the Government made the whole of its advances in this form. Its holding of ordinary or government shares involved, no doubt, an additional risk, but against this must be placed the fact that it had almost complete power to control the policy of the company. Finally, it was possible for the Ministry to dispose of its interests after the war as a share in a going concern without involving a definite break in the work, or temporary closing down of the works.

(d) APPOINTMENT OF WHOLE BOARD AND MINISTRY OWNERSHIP
OF COMPANY'S CAPITAL.

This was done in the case of the Hoffman Manufacturing Company, which had thus virtually become a national factory. The whole output was acquired by the Government or by sub-contractors on its behalf, and the objection, which would be valid in peace time, that the Ministry was competing with British subjects in the same line of business did not hold. There was also the advantage in the case of this and similar undertakings that after the war the Ministry could sell the business as a going concern and divest itself of all responsibility. But a break in the management and policy of the company was more difficult to avoid.

(e) APPOINTMENT OF A MAJORITY ON THE BOARD OF DIRECTORS.

As an example of a company in which the Ministry held none of the shares, but controlled the Board of Directors, Messrs. Aston and Mander may be quoted. The company had been in continual

financial difficulties during the first two years of the war, and the Ministry had from time to time advanced money and finally reconstructed the company. By May, 1917, the position was that Mrs. Mander held all the ordinary shares (1,000 £1 shares) and the Ministry debentures to the value of £4,000 against advances made. The Board of Directors consisted of Mrs. Mander and two Ministry officials. The Financial Advisory Committee took a serious view of the question and considered the position of the two Ministry officials to be compromising. "The Ministry Directors are in a position where their duties conflict We think this position is a dangerous one and in all senses objectionable. It is conceivable that Mrs. Mander might have good grounds of complaint against the Ministry officials" The dilemma of these two officials is indeed obvious. Their duty was at once to reduce prices for the Ministry and to increase them for Mrs. Mander.

The general conclusion of the Financial Advisory Committee on the question of government representation on the staff of private firms was that "whilst the position of a Government representative in special cases is one which in existing war conditions is necessary and defensible in the interests of public economy as it constitutes no fiduciary relations to the shareholders and gives no powers of directional interference and is limited to protecting the interests of the Ministry under its various contracts, the position of a director on the other hand is open to grave objections; it places him in a dual capacity, gives no additional protection to the Ministry, and no such appointment should be sanctioned by the Minister except in special cases,"¹ similar to that of the Periscopic Prism Company.

VII. New Issues Appeal Committee.

In November, 1917, attention was called to the fact that a large proportion of applications for capital issues, supported by the Ministry, were being rejected by the Treasury Capital Issues Committee, without any explanation being given. In supporting such applications, the Ministry felt itself responsible for pressing for consent in cases where the proposed issue, for reasons of supply, was important to the Ministry.

An instance occurred in the case of the Ebbw Vale Steel and Iron Company. On 13 September, 1917, an issue of £300,000 shares was sanctioned, but a further issue was refused which included sums for the development of the Irthlingborough iron ore mine. The Ministry supported the application on the ground that it was relying on the output of these mines to carry through its programme for the manufacture of basic pig iron. On 31 October, 1917, on an appeal being made, sanction was again refused. The Ministry supported a further application on 14 January, 1918; but again the committee refused, on the ground that sufficient issues had already been sanctioned. Other important cases were the Yorkshire Gas Power and Bye-products Company, the Potash Manufacturing Company of Great Britain, the Newcastle Alloy Company, and the Bengal Iron and Steel Company.² In some instances, the

¹ Report of 29 May, 1918 (C.R. 4600).

² Particulars of these and other cases are given in C.R.V./Gen./1579.

committee were guided by unfavourable reports from the Board of Trade ; in others the objections were on points of finance.

On 28 January, 1918, the Minister circulated to the War Cabinet a memorandum by Sir L. Worthington Evans, which pointed out that the New Issues Committee's action was holding up important supplies in connection with aircraft, iron-ore mines, lead, tungsten ore, potash, fuel, and acetone. It was admitted that the committee had the duty of protecting War Loans from competitive issues ; but it was suggested that money not attracted by War Loans was available for speculative issues and might relieve the Ministry of the necessity of making to the companies advances which would have to come out of the proceeds of War Loans.

An instruction was asked for that where the committee rejected, for reasons of finance, an application supported by the Ministry for reasons of supply, an appeal should lie to a member of the War Cabinet, the Chancellor of the Exchequer and the Minister of Munitions. On 21 February, therefore, the War Cabinet appointed an Appeal Committee.

The difficulty which thus arose between the Ministry and the Treasury is of importance on account of its bearing on the question of Treasury control of capital expenditure by the Ministry. The Treasury argued that the necessity or otherwise for any particular expenditure by the Ministry, with the object of increasing output, involved technical problems which were outside their ken, and in consequence, from the beginning of 1915 until the autumn of 1917, forwent their right of control. The necessity or otherwise of new capital issues which were intended by firms to be expended on the extension of their capacity to produce munitions involved issues of an exactly like character. But, in this case, it was impossible for the Treasury to sacrifice their right of control.

VIII. Audit of Assisted Contracts.

When Mr. Lever came to the Ministry in August, 1915, he considered that the firms receiving contributions to capital expenditure should be required to show that the money had been spent for necessary purposes. Accordingly, among the duties assigned to him was

“ the examination into all current and future contracts with the view of ascertaining whether the contractual obligations are being properly carried out in respect of matters of capital expenditure or other obligations of a financial nature under the contract.”¹

All the assisted contracts arranged after this time provided for the examination of contractors' books by Ministry officials, in order to ascertain that the money granted had been properly expended. A staff was organised in Mr. Lever's department to carry out this audit. It worked in close collaboration with the staff auditing the national factory accounts, and the staff which examined manufacturing costs. This work was continued during 1916.

¹ Minute of August 1915. See Vol. III, Part I, Chap. I.

At the beginning of 1917, after Mr. Lever had left the Ministry, the Finance Department was re-organised. Mr. Webster Jenkinson was appointed Director of Factory Accounting,¹ and shortly afterwards he became Director of Factory Audit and Costs. In this capacity, he undertook the auditing of capital expenditure at contractors' works. The section was seriously handicapped for want of staff. At 31 March, 1917, it consisted of only four officers, who often had to be withdrawn from their work for other duties. In the course of the financial year 1917-18, the staff was increased, but as in other branches of the Finance Department, great difficulty was experienced in obtaining chartered accountants. By February, 1918, the total amount audited had reached £12,000,000.² The lack of staff accounts for the state of the work as described by the Comptroller and Auditor-General in his report dated March, 1918, in the following terms :—

“ Under the method of accounting at present prescribed, all payments of this character are at once charged to the Vote and the Accounting Officer has obtained credit for them in his Appropriation Account, but a very large proportion of the money so disposed of, amounting in the aggregate to many millions has not yet been followed up by this examination on behalf of the Ministry, and it appears that the arrears of such unaudited expenditure continue to increase.”³

In February 1918, it was arranged that the auditing work should be divided as follows. The Controller of Munitions Contracts was to audit contracts on a costs basis where no capital expenditure was involved. Contracts providing for capital expenditure were to be audited by the Director of Factory Accounting, both as regards the capital expenditure on contracts and the work of production when this was done on a cost basis.⁴ In March, the auditing section was reorganised as F.A.14 and took over the auditing staffs of the Trench Warfare, Explosives Supply and Aircraft Production Departments, which had hitherto worked independently. At the same time the staff was increased, the services of a number of chartered accountants being obtained.⁵ Under the procedure which now came into force, it was laid down that the objects of the audit conducted by F.A.14 were (a) to vouch contractors' expenditure and ensure that money advanced by the Ministry had been spent within the terms of the contract ; (b) to see that advances did not exceed the terms authorised ; and (c) to see that proper sanction had been obtained from the authorising department, and that subsequent payments were covered by technical certificates. The form of accounts kept by assisted contractors was reviewed by the heads of the Contracts and Accounts Departments with the object of assimilating them so far as possible to the accounts of national factories.⁶

¹ General Office Notice No. 89 (6/1/17).

² D.F.3/P.A.C/31.

³ *Report of Comptroller and Auditor General on Ministry of Munitions Appropriation Account, 1916-17*, para. 27 (H.C. 24).

⁴ Minutes of Financial Secretary's Standing Committee, 27/2/18. (C.R. 4386.)

⁵ D.F.3/P.A.C/31.

⁶ Minutes of Financial Secretary's Standing Committee (22/5/18).

The number of assisted contracts outstanding on 31 December 1918, was 1,185, including 185 which, as involving repayable loans, guarantees, etc., would probably not require audit, while 700 had been partially audited. The Comptroller and Auditor-General in stating these facts in his report of April 1919, observed that the volume of work to be done after the Armistice, was thus very large, and the difficulty of obtaining suitable staff and the desirability of expediting settlements with contractors under the changed conditions were great. The Ministry had accordingly proposed, in a letter to the Treasury of 11 February, 1919, a simplification of the audit procedure, which was approved by the Treasury on 27 February.¹ It was understood, however, that a detailed examination would be made where special circumstances rendered it desirable.²

¹ M.F./Gen/1738.

² *Report of Comptroller and Auditor General on Ministry of Munitions Appropriation Account, 1917-18*, para. 33 (H.C. 79).

CHAPTER II.

MUNITIONS LEVY AND EXCESS PROFITS DUTY.

I. Introductory.

The original purpose of the munitions levy was to persuade the trade unions to accept the relaxation of union restrictions as bargained for in the Treasury Agreement in return for the limitation of the profits of owners.¹ The fiscal functions which the Ministry of Munitions acquired in consequence of the Munitions of War Act, were an anomaly which may perhaps best be considered here on account of the manner in which they affected those other functions and activities of the Department with which we are more directly concerned.

What primarily concerned munitions finance as treated in this volume was the use which was made of the Munitions (Limitation of Profits) Rules 9 and 10² which determined the conditions under which the Minister was empowered to grant allowances to contractors by means of writing down capital expenditure and in the form of allowances for increased output. These allowances to a large extent superseded the earlier methods of assisting contractors, although as will be shown, they did not in reality constitute a complete substitute for direct assistance. After the abolition of the munitions levy, other forms of contribution had again to be devised.

The events which led up to the passing of the Munitions of War Act on 2 July 1915 have been recorded elsewhere.³ We are not concerned here with the history of these events nor with the provisions of the Act as they affected labour. We are concerned, however, with the provisions affecting the owners of controlled establishments and the special rules drawn up under this Act for the application of these provisions on account of the effect which they had on the policy of the Ministry in assisting contractors.

Under Sections 4 and 5 of the Act,⁴ the Minister of Munitions was empowered to control establishments in which munition work was carried on. Control did not involve any interference on the part of the Ministry with the management of the firm. It relieved the establishment of the restraints imposed by trade union restrictions and practices calculated to restrict output, and on the other hand it restricted the firm's profit. According to Section 4 "any excess of the net profits of the controlled establishment over the amount divisible under this Act" had to be paid to the Exchequer. The amount thus payable to the Exchequer was the excess, if any, of the profits of the year under consideration over "the standard amount of profits" (which as a rule was the average profits of the two years preceding the war), plus 20 per cent. of the standard profits. By lopping off all monetary advantage to the firm beyond 20 per cent. above the standard profits,

¹ Vol. I., Part II.² Appendix II.³ Vol. I., Parts II, III.⁴ Appendix I.

all purely economic incentive to increase production beyond the output necessary to gain that amount might have been removed. The Minister of Munitions was given power to overcome this difficulty, under sub-section (4) of Section 5 of the Act which read as follows :—

“ The Minister of Munitions may make rules for carrying the provisions of this section into effect, and these rules shall provide for due consideration being given in carrying out the provisions of this section as respects any establishment to any special circumstances such as increase of output, provision of new machinery or plant, alteration of capital or other matters which require special consideration in relation to the particular establishment.”

The administration of the clauses of this Act concerned with the limitation of profits was assigned to a section set up under Mr. Owen Smith (eventually known as the Controlled Establishments Division) and the first task to occupy its attention was the framing of rules under this section. Various eminent accountants and other persons competent to advise the Department, including representatives of the most important engineering and armament firms and employers' federations, were consulted, and provisional rules were issued in September, 1915. The two which are of importance here are Rule 9, which deals with the adjustments which might be made in determining the net profits for a period of assessment, notably in respect of capital expenditure incurred for munition work and exceptional wear and tear of plant, buildings and machinery, and Rule 10, which allowed, under certain conditions, additions to the standard amount of profits.

According to Rule 9 “ in determining the net profits for any period of assessment, due consideration shall be given to, and any appropriate adjustments may be made in respect of

- (a) “ Exceptional wear and tear of plant, buildings and machinery ;
- (b) Capital expenditure specially incurred for the purpose of munitions work ;
- (c) The probable value to the controlled owner at the end of the period of control of any plant, buildings or machinery erected or installed or other expenditure incurred for munitions work, since 4 August, 1914 ;
- (d) Special provisions or terms of any contract entered into between the Government and the controlled owner ;
- (e) Any exceptional services rendered by the controlled owner in connection with the controlled establishment ;
- (f) Any increase in salaries or other emoluments of any persons engaged in the management or direction of the controlled establishment made since the end of the standard period, or any steps taken since the end of that period which might operate to decrease net profits ;
- (g) Generally any other matter which may appear to the Minister, or to the Referee, as the case may be, material to be taken into account.”

The importance of this rule was twofold. In the first place it emphasised the fact that the Munitions of War Act was not primarily, either in intention or design, a finance act. The object of the Act and the function of the Minister were to enforce a bargain which it was believed would increase the output of munitions. The Minister was, and remained, primarily concerned with the output of munitions, not with revenue. In the second place, the allowances for writing down capital expenditure specially incurred for munitions work out of profits, on the conditions enumerated above, came to be looked upon to a certain extent as an alternative to the advances which the Ministry had previously made to contractors. The two methods of procedure, however, are not in reality alternative, and the fact requires emphasis on account of the frequency of statements to the contrary.

Rule 10 dealt with the amount which might be added to the standard amount of profits on account of (a) an increase in the capital employed or (b) an increase in the volume of output. The decisions contained in this rule were, first, that 8 per cent. should be allowed on such capital (which might include additional capital provided by the Government) as the Minister agreed was in excess of that employed during the standard period, and secondly, that there might be added on account of increased output such fraction of the amount which, in the opinion of the Minister, might fairly have been earned during the standard period on account of an equivalent increase in output as would afford a reasonable return in respect of the additional volume of output. Ultimately, the fraction was fixed at 40 per cent. and the amount which the firm might have been expected to earn during the standard period was estimated on the evidence afforded by the change in prices. These two possible additions to the "standard amount of profits" were alternative, the contractor when he was in a position to claim both being allowed to make his choice. These final decisions were only reached, however, after long and exhaustive discussion in the Department.

Before any definite system for treating special cases under Rules 9 and 10 was able to take final shape, however, the administration of the Munitions of War Act was modified by the introduction of the excess profits duty. It is necessary, therefore, to chronicle briefly the most important facts with reference to the effect of the excess profits duty upon the munitions levy before considering in further detail the somewhat chequered career of the special rules under which the latter was enforced. When, in the summer of 1915, it was proposed to introduce a Finance Bill involving the general taxation of profits in excess of a pre-war standard, the Ministry of Munitions at once took up the question of its probable effects on the Munitions of War Act. Mr. Owen Smith prepared a memorandum for submission to the Cabinet, in which the points at which the proposed Bill and the existing Act would overlap were considered. Under both the Bill and the Act, standard profits had to be ascertained, in the one case by the Commissioners of the Inland Revenue, in the other by the Ministry of Munitions. The standards were not the same, the Bill taking the two or three financial years according to the firms' preference, the

Act, as a rule, the two financial years preceding the war. Under both, appeals (to different referees and on grounds which were not identical) were admitted. The Act took all profits over and above the standard profits, plus 20 per cent. thereof, the Bill proposed to take 50 per cent. of all profits above the standard profits. Both provided for allowances in respect of exceptional depreciation and redundancy of plant.

On 30 November, after a series of meetings between officials of the Treasury and of the Ministry, Mr. Lloyd George wrote a personal letter to the Chancellor of the Exchequer urging that, if it was impossible to omit controlled establishments altogether from the proposed Finance Act, the Treasury should at least accept the munitions standard for such firms. This was not done; but the problem was shelved for some months, the Finance Act finally being framed so as to include the accounting period from the beginning of the war up to 1 July, 1915, only. As no firms were controlled until 12 July, overlapping was avoided.

In the following June, on the introduction of the Finance Bill, 1916, the question arose again. After lengthy discussions, both between the two Departments primarily concerned and in the House of Commons, it was finally arranged that payment of munitions levy should *pro tanto* extinguish liability to the excess profits duty (which by the 1916 Act was raised to 60 per cent.) and *vice versa*. A controlled establishment, therefore, had to pay not the two duties but whichever one was the greater. Further, in order to avoid the inconvenience of two Departments negotiating with the same firm for the one purpose of extracting taxation from it, it was arranged that, whenever a controlled establishment so elected, and in the majority of cases they did so elect, both its liability for excess profits duty and its liability for munitions levy could be dealt with by the Ministry. It was also laid down as a working principle between the two Departments that the assessment of munitions levy by the Ministry should take place first, so that the Inland Revenue Department was only interested if the liability for excess profits duty exceeded the amount of the levy. This was normally ascertained by the controlled firm sending in its account to the Controlled Establishments Division of the Ministry, which made a preliminary examination to ascertain whether the excess profits duty or the levy was likely to form the heavier liability. In the event of the former alternative, the Controlled Establishments Division handed over the accounts to the officers of the Inland Revenue Department who, by collecting the excess profits duty, automatically cancelled the munitions levy. In the event of the latter alternative, the Controlled Establishments Division assessed the levy and similarly cancelled the excess profits duty.

Up to this point in the contest between the two Departments, the Ministry of Munitions had fairly maintained its position. It had failed, it is true, to obtain exemption from the excess profits duty for controlled firms. But this was inevitable, as exemption of this sort would have been illegal. It had likewise failed to persuade the Treasury to accept its standard of profits. But the limitation of

profits was retained, and, by working arrangements between the two Departments, the Ministry of Munitions obtained the right to priority in dealing with the assessment of controlled firms.

When, by the Finance Act, 1917, however, the excess profits duty was raised to 80 per cent. the munitions levy became supererogative and, on 4 August, 1917,¹ the work of collecting arrears of the levy was transferred to the Board of Inland Revenue. Further, the Act was made retrospective to 31 December, 1916, and from that date the munitions levy disappeared. This step, however, was not taken without a protest from the Minister of Munitions, who wrote to the Chancellor of the Exchequer on 1 June, 1917, suggesting, in view of the original pledges which the Department had made to the Labour Party at the time of the introduction of the Munitions of War Act, that the Finance Bill then under consideration should be changed and controlled establishments only be allowed to retain 15 per cent., thus differentiating them from other firms. This proposal was, however, rejected at a meeting held at the Treasury twelve days later. It is interesting to note that at this period, Sir L. Worthington Evans wrote that, for his part, he "would prefer that the taxing part of our work should be separated from us, as it seems difficult to act in the two capacities of taxers and customers."²

II. Principles of the Extension of Control.

In an earlier volume³ it has been pointed out that the idea of "control" was originally associated not with the suspension of trade union customs, but with the extinction of private work in the engineering and shipbuilding establishments, which was the main object of the Defence of the Realm (Amendment) No. 2 Act (March, 1915). In the course of Mr. Runciman's negotiations in March with the principal armament firms, control was narrowed down to the limitation of profits; and, at the same time, at the Treasury Conference, limitation of the profits of "all important firms engaged wholly or mainly upon engineering or shipbuilding work for war purposes," became part of the bargain under which practically the whole of the trade unions pledged themselves to recommend the suspension for the war period of restrictive rules and practices. The fact that the Government found it impracticable to carry through the limitation of profits by voluntary agreement with the armament firms was one reason why the Treasury Agreement remained to a large extent a dead letter. The failure of the bargain on both sides made it necessary to embody the Treasury Agreement in the Munitions of War Act. The object of Sections 4 and 5 of that Act was to create a class of controlled establishments within which both sides of the bargain should be legally enforceable.

The limitation of employers' profits was included not for its own sake, but in order to secure the trade unions' consent to the measure. In the abstract, it would obviously have been fairer to have dealt with profits by means of an excess profits duty, not confined to munition

¹ HIST. REC./R/360/14. ² Letter dated 25 May 1917 (HIST. REC./R/400/41).

³ Vol. I, Part III.

manufacturers, but falling equally on all excessive profits due to war conditions, and, so long as such a tax was supposed to fall strictly on excess profits, the standard of untaxed profits should have been determined by pre-war profits taken in conjunction with the actual purchasing power of the currency in which they were measured. The scheme for such a duty was prepared by Mr. McKenna immediately after the formation of the Coalition Government (26 May, 1915), although in this scheme the scientific corrective factor of the level of prices was omitted. But, for political reasons, it was considered impossible to introduce it before September. Had the Coalition Government had the courage (or will) to make such a tax its first act of grace, endless difficulties and considerable financial confusion would have been obviated. Instead, it was considered inevitable that this duty should be postponed until the autumn, and essential that the contract with Labour should be closed at once. Hence, the limitation of profits under the Act was confined to establishments in which "munitions work" was carried on and only such establishments could be controlled. The definition of "munitions work" was designed to include all such war work as it was then particularly desired to free from restrictive customs; but it could not cover a much wider field than that within which it was practicable to limit profits. Hence it is narrower than the definition given to the Ministry of Munitions Act, and considerably narrower than the field covered by the trade unions' pledge to the Treasury Agreement. As a result, in so far as the Act superseded the Treasury Agreement, the suspension of restrictions on output, being under the terms of the bargain co-extensive with limitations of profits, would be secured only in controlled establishments.

At first the Ministry intended to control only the main contractors to the Admiralty, the War Office and the Ministry, including the principal engineering and shipbuilding firms—"one or two hundred names at most." But gradually, circumstances forced the Ministry to extend control far beyond the limits of its original intentions. Whatever the defects of the Act, the removal of trade union restrictions to output, the right to obtain munition volunteers and the increased security which the employer enjoyed as a result of the adherence of Labour to its side of the contract did tend to increase production. Both the Government and the employer, after the introduction of the excess profits duty, were naturally predisposed to extend control whenever difficulties arose or increased output was required. In the Munitions of War (Amendment) Act, 1916, legal recognition was definitely given to the new conditions which the gradual working out of the Act during the preceding year had brought about, and "munitions work" was defined as including not only the manufacture and repair of ammunition, ships, or buildings or docks essential thereto, but also "any other articles or part of articles (whether of a similar nature to the aforesaid or not) intended or adopted for use in war." Similarly, it was at first intended not to control firms whose percentage of government work was small or firms which all told did not employ five hundred hands. The Salt Union, for instance, escaped control on showing that its work for the Government did not exceed $1\frac{1}{2}$ per

cent. of its total turnover. But, owing in part to the desirability of controlling all competing firms in any industry in which some of the firms were controlled, in part to other causes which will be considered later, neither of these two principles secured rigorous adherence. In some instances, control was imposed on a whole industry in error, in others from deliberate policy in order to avoid the accusation that an advantage was being reaped by those firms who were not doing their share in assisting to supply the needs of the Government. In both cases, there was always a possibility that small firms, or firms only occupied to a small extent upon government works, or firms not actually employed on "munitions work," as defined by the Act, would fall under the mantle of the Controlled Establishments Division. As an example of control being imposed in error, the seed crushing industry may be quoted. This industry was controlled on the suggestion of the Explosives Supply Department, on the ground that a proportion of its output was required for the manufacture of glycerine in soap works. The supposition was true, but, after control had been duly imposed, it was discovered that only a negligible fraction of the total output was actually so used.

Immediately it was allowed that the control of one firm was of itself sufficient ground for the control of all that firm's competitors in the same industry, the argument was naturally pressed that it was also a sufficient reason for controlling that firm's competitors in allied or semi-competitive industries, and further, that the control of any one industry was sufficient reason for controlling a rival industry. The surprising fact indeed was not that the scope of the operation of the Act became enlarged, but that it failed to embrace the whole industry of the country. Thus Mr. (later Sir William) Larke, an officer in the Controlled Establishments Division, in a minute dated 27 August, 1915, urged that textile factories, boot and shoe factories, suppliers of food and provisions and all other trades which contributed to the equipment of the Forces might and should be brought under the ægis of the Controlled Establishments Division.¹ It was immaterial that the Ministry of Munitions was not itself concerned with the majority of these industries. The Ministry, in this connection, was simply the agent of the Government. It was, presumably, likewise immaterial whether the industries in question were hampered by trade union restrictions or whether the employees were in need of the contractual assistance which control involved. The question of the degree to which output would be increased by the imposition of control was in fact, as early as August, 1915, becoming obscured to the eyes of the branch concerned. Mr. Owen Smith, the head of the Controlled Establishments Division, qualified the proposal merely by suggesting that purveyors were only manufacturers to a limited extent and should, on that account, be omitted. Equity appeared to demand the inclusion of other firms not thus protected by a definition. It remained for Mr. (later Sir William) Beveridge, the Assistant General Secretary, to suggest that the question of indefinite extension might be postponed until the Chancellor of the Exchequer laid his proposal for the taxation of war profits before the

¹ M.W. 40391.

House of Commons. It cannot be said, however, that the introduction of the first excess profits duty had any great restraining influence on the activities of the Controlled Establishments Division. On the contrary, some employers seized the opportunity to appeal to become controlled, thinking that they were likely to obtain more generous treatment in the question of rebates from the Ministry of Munitions than from the Board of Inland Revenue.

To some extent the amount of work involved in control and the difficulty of obtaining adequate staff, to some extent the law itself, acted as the limiting factor in the expansion of control. Moreover, it was gradually realised that, whatever the logic of equity might demand, control was only really justified by the spirit of the original bargain when the abolition of the restrictions on output was required to increase the production of goods directly required for the conduct of the war.

The tendency was to interpret the law generously, but the President of the London Tribunal ruled out machinery for making Army biscuits on the grounds that the words "articles intended or adapted for use in war"¹ should be construed in accordance with the doctrine of *ejusdem generis*.²

III. Reasons for the Extension of Control.

(a) THE GOVERNMENT.

As has been indicated, there was small inducement to Labour to press for the inclusion of additional firms. In recording the forces which contributed to the extension which actually took place, therefore, it will be sufficient to review the position from the point of view of the Government and the employer.

One lesson which emerges clearly from the history of British domestic administration during (and after) the war is that controls which are not logically complete either break down and cause protracted confusion in the process, or develop until they have become logically complete. Thus the Munitions of War Act, as a measure for limiting profits, was soon applied to an increasing number of industries, and, even before the appearance of the excess profits duty, was advancing towards logical completeness. The Government was forced, almost at once, by complaints raised against the unfair incidence of their control of profits to include, in the first place, trade groups *en bloc*, enmeshing thus small concerns which it would otherwise have left alone; and, in the second place, fresh industries which *prima facie* seemed only distantly connected with munitions. Thus the machine tool industry was within the first month controlled as a whole on the recommendation of the Machine Tool Committee; the tin plate industry was controlled, not on account of the character of its output, but because the plate works were largely owned in South Wales by the steel makers, who, if these were left uncontrolled, could make them realise abnormal profits by selling them steel bars at low prices.

¹ *Munitions of War (Amendment) Act, 1916.*

² Case of Messrs. Joseph Baker & Son, Willesden Lane.

Further in some cases control was declared in order to remove grounds for any excuse that a firm might offer for failure to fulfil its contract obligations; in others, simply to give employers and workmen a stronger sense of moral responsibility.

The Government was anxious at the outset to extend control to those factories in which it was itself in the position of employer. The Royal Ordnance Factories, therefore, had been included in the original list, submitted on 6 July by the Ministry to the War Office, of establishments which it was proposed to control. Various causes of delay, however, arose, and before these were overcome, the question of the legality of such a procedure was raised. There were in fact various and obvious objections to the Government controlling its own factories and forcing Labour to carry out its side of the bargain involved when the complementary conditions concerning profits could not in the nature of the case apply. Moreover, the Crown could not be made liable for an offence before a munitions tribunal.¹ On the other hand, it was obviously impossible for government factories to be operated under labour conditions less favourable to efficient production than the conditions obtaining in private firms, and the Ministry decided, accordingly, to remove the legal difficulties by proposing a modification of the Act, and to plead necessity so far as the question of abstract principle was concerned. As a result, an amending Bill was drafted in November, Clause 1 of which empowered the Minister by order to "declare any establishment or establishments belonging to or under the control of His Majesty or any Government Department in which munitions work is carried on to be a controlled establishment, or controlled establishments as the case may be," and thereupon the provisions of the principal Act and of the amending Act were to "apply to such establishment or establishments subject to such modifications and exceptions necessary to adapt those provisions to such an establishment or establishments as may be specified in such order."²

The amending Act became law on 27 January, 1916. A list of government factories was then prepared, including, besides the Royal Ordnance Factories, Admiralty Dockyards and the National Projectile, Filling and Explosives Factories. In the controlling order issued in March a Schedule was attached laying down that the provisions of the principal Act for limitations of profits and (except in so far as they related to contractors and sub-contractors employing labour in the establishment) for consent being required for changes in the rates of wages should not apply. Further, so much of Section 4 as made non-compliance by the owner an offence, was not to apply. But the obligations of labour were of course enforced.

(b) THE EMPLOYER.

At the outset the employers were, as a rule, somewhat averse from being controlled. There was at first an idea abroad that a declaration of control implied some slur on the conduct of the business; and the War Office more than once applied for exemption of some firm from control on the grounds that it was "working well." The steel makers

¹ M.W. 41492/2. ² OF/Gen/95; *Munitions of War (Amendment) Act*, 1916.

in August, 1915, came to an understanding with the Contracts Department that they should not be controlled provided the demands of the Department were satisfied, and it was necessary for the Controlled Establishments Division to stipulate that the question of control should not be introduced as a factor in negotiations with firms, and that any idea that control was punitive should be discouraged. Moreover, as has been explained above, before the imposition of the excess profits duty there was also a natural desire to escape the limitation of profits, and much anxiety as to its effect on the balance sheet of firms which had incurred large capital expenditure for war extensions or had begun to prosper under war conditions after lean years in the standard period. The principal objections urged by employers were based upon these points. It was generally found possible to remove them, however, by showing that the Ministry was prepared to give generous consideration to hard cases, and by explaining the Minister's wide powers in regard to allowances for capital expenditure and for increased output.

Certain firms, more especially those which had not lost individual interest in their men and had successfully resisted the mechanical injustices of collective bargaining, naturally objected to the interference of a third party disturbing their mutual relationship. When the practical working of the Act became known, an objection not infrequently advanced by the employers was that when the establishment was controlled the employees considered it a ground for demanding a higher rate of wages. By the middle of August, however, the advantages of increased production, of the removal of trade union restriction, of disciplinary rules and of the services of munition volunteers, had come to be viewed by many firms as outweighing these objections, and frequent applications from firms requesting to be controlled were received.

A principal motive for desiring control was the wish to introduce dilution without falling foul of the unions. After the failure of the war munition volunteer scheme, it became evident that a sufficiency of labour could be obtained only by the extensive introduction of unskilled and female labour, and dilution became the central labour problem. This motive can be illustrated by the case of the wood-making firms in Manchester and the neighbourhood, which had just got into trouble with the craft societies by introducing female labour without consulting the other side. The Labour Officer for the Area reported that dilution could not be peaceably effected unless at least a few of the firms were controlled. The inclusion of the trade turned exclusively on this point.

It was also found that in practice, although the provision in Section 7 of the Act was not formally confined to controlled establishments, the uncontrolled owner had a difficulty in retaining his men. Many applications for control were prompted by a desire to convince the workmen that the firm was really engaged on munition work. The indirect moral effects of a declaration of control in removing the restlessness of labour and giving the employees a sense of the national value of their work were indeed amongst the most important advantages of the Act.

IV. Administrative Machinery.

(a) FUNCTIONS AND GENERAL ORGANISATION OF THE CONTROLLED ESTABLISHMENTS DIVISION.

The preceding description of the scope of the Munitions of War Act and the rules thereunder, so far as they affected the profits of the controlled firms, indicates the character of the functions which the Controlled Establishments Division had to perform.

In the first place, the standard profits had to be fixed—a task which involved in part pure accountancy, in part a general knowledge of business conditions and methods. The moneys due under the Act had to be collected and handed over to the Exchequer. If there were no allowances and no claims, this comparatively simple tax gatherer's duty was then complete. But in practice, claims almost always did arise and allowances were very frequently granted. The Controlled Establishments Division had, therefore, to constitute a special staff to deal with claims for exceptional wear and tear, extraordinary capital expenditure, post-war values of plant etc. [Rules 9 (a) (b) and (c) and (h)], special services, increased salaries, increased volume of output, etc. [Rules 9 (d) (e) (f) (g) and Rule 10]. Thirdly, arrangements had to be made to meet the possibility of firms taking their case to the referees.

There were two principles of division running through the organisation actually set up. On the one hand the whole division and each sub-section was divided into groups according to the grouping of the industries dealt with.¹ On the other hand, the division was divided into sections according to the character of the functions to be performed. Thus at the top there was Mr. Owen Smith's personal staff which controlled all the important correspondence of the division and, while mainly concerned with the wider questions of policy, acted as a central co-ordinating division.

(b) THE FIXING OF STANDARD RATES AND ACCOUNTANCY WORK.

For the purpose of fixing the standard rate of profits, calculating the levy due, collecting moneys and dealing with the general work of accountancy, a staff of accountants was organised, which, by the end of 1917, included about 70 chartered or incorporated accountants. This staff was divided into 15 groups according to the industrial categorisation given above. In addition to this a small committee of consulting accountants was set up to which all questions of accountancy principle were referred.

So long as the questions which arose involved technical problems of accountancy and nothing more, they were determined either by the accountant responsible, or by one of the consulting accountants or by

¹ This grouping was as follows :—(a) Armaments, Ammunition, Ordnance; (b) Aircraft; (c) Engineering, (i) Electrical, (ii) Telegraphic, (iii) Mechanical, (iv) Marine; (d) Machine Tools; (e) Shipbuilders and Repairers; (f) Iron and Steel, etc., (i) Ironworkers, (ii) Blast Furnaces, (iii) Wire Workers; (g) Printing and Textile Machinery, etc.; (h) Motor Cars, Cycles, etc.; (i) Constructional Engineers; (k) Sundry Manufacturers; (l) Tin Plate Works; (m) Chemical Works; (n) Seed Crushers; (p) Wood Makers; (r) Asbestos Works.

the committee of consulting accountants. But the Act was of too indeterminate a character for it to be possible to administer it according to strict technical interpretation. It was therefore decided in September, 1915 to appoint officers, known as "settlers" who should bring to the department, not special technical knowledge, but general business acumen, knowledge of industrial conditions and knowledge of men.

Considered from the point of view of the logical process of the work, the first function of these settlers was to determine special standards. Difficulties naturally arose in the case of firms which, for instance, made abnormally high or abnormally low profits during the standard years, or of new firms not then in existence. Similarly, since strictly it was the establishment and not the firm which was controlled, consideration had to be given to the degree of interdependence between a controlled and an uncontrolled establishment belonging to the same firm, or, in some cases, to the degree of interdependence between two firms legally independent but actually closely linked together. In such cases, the staff accountant would prepare a report of the case for the settler, discussing if necessary any pure accountancy problems first with the consultative accountant, who in turn might refer them to the committee of consultative accountants. The settler would then consider the case on broad business principles, and, if no difficulty arose either with the accountant responsible or with the controlled owner, his decision would be final. In cases of this description, the accountant was obviously in a position to use his own discretion, and it was for him to decide whether the standard of any particular firm should be determined on pure accountancy principles or should be referred to the settler. When claims were preferred for special services rendered, as for instance on account of inventions by the firm or for increased emoluments to the directing staff, the advice of the settler had to be sought, and if a consultation with the controlled owner was required or further information solicited, the correspondence would pass through the settler's hands. Likewise all claims under Rule 10 for increasing the standard amount of profits on account of either increased output or an increase in the average amount of capital employed came before the attention of the settlers.

Whenever a difference of opinion arose, either between the settler for any group and the head accountant or between the settler and the controlled owner, or whenever a new question of principle arose, the matter would be referred to the Settlers' Committee which met once a week under the chairmanship of Mr. Owen Smith.

Both the controlled owner and the Ministry had the right to refer any dispute to the Board of Referees appointed in accordance with Section 5 sub-section (3) of the Munitions of War Act. The decision as to which cases should be referred by the Ministry, was made by the Settlers' Committee. The decision of the referees was, of course, final.

A small staff was organised in the Controlled Establishments Division which worked under the supervision of the Treasury Solicitor, for dealing with cases to be submitted.

(c) THE VALUATION BRANCH.

In order to meet claims arising out of Rules 9 (a) (b) or (c), for exceptional wear and tear, and for the probable decreased value after the termination of hostilities of capital expenditure specially incurred for munition work, a Valuation Branch was organised, consisting of engineers and others with an expert knowledge of valuation. This branch was responsible for the amount of the writing off allowances and it is with it, therefore, that we are more particularly concerned in this chapter.

So far as the Controlled Establishments Division was concerned, evidence of the necessity of extensions for which allowance would, *inter alia*, be made was at first, in the majority of cases, obtained from the supply department, as likewise, was the evidence that work on such extensions was proceeding satisfactorily. But this principle was not without its exceptions, and, in the case of Admiralty contracts, the Controlled Establishments Division was itself responsible for watching progress. It was, moreover, open to the serious objection that the officer who was primarily concerned with supply was not the person best fitted to dictate economy or decide the financial reasonableness of any new undertaking which might facilitate supply. For these reasons it was proposed in the autumn of 1916 to establish a new division (1) to approve plans of proposed extensions and (2) to supervise the execution of the work, and this proposal materialised in a sense, in the creation of the Munition Works Board in January, 1917.¹ It does not appear from the minute establishing this Board² that to it was given the duty of determining the amount of allowances to be made in respect of extensions in computing the munitions levy. This was in fact the function of the Valuation Branch. But, during the course of the spring of 1917, it was decided that, while the valuations should be carried out as before by the Controlled Establishments Division the final responsibility for the amount of the allowances should rest with this Board.³ On the other hand, the Finance Department had from the beginning, as is shown below,⁴ insisted on its prior right to determine bargains arising out of the Act made with firms under certain conditions.

The task of accounting for the munitions levy through the Board of Inland Revenue was handed over to the Controlled Establishments Division in the first instance on the ground that the Finance Department of the Ministry, which was primarily concerned with the financial conditions of munitions supply, could not properly be charged with that duty.

Mr. Lever, the Assistant Financial Secretary, claimed, however, that when any new supply or any increase of supply had to be arranged and when, as a consequence, terms had to be agreed with reference to capital expenditure incurred, those terms were a matter in which his department was vitally interested, and for which, indeed, he had been made definitely responsible by the Minister's instructions to him of

¹ See below p. 85.³ HIST. REC./R/360/14.² General Procedure Minute No. 69 (23/1/17).⁴ See below p. 44.

29 October, 1915. As a consequence, financial arrangements in respect of new or increased output which demanded capital expenditure continued throughout 1916 to be made by the Finance Department. Agreements were in fact entered into, in many cases, by the Finance Department without the prior concurrence of the Controlled Establishments Division and took the form (1) of undertakings by the Ministry to pay the whole cost of certain extensions, the property remaining vested in the Ministry, and (2) of undertakings by the Ministry to grant writings off from excess profits under Rule 9 of a definite percentage of the approved capital expenditure, coupled with a grant of further writings off in the form of the output allowances promised under Rule 10. These undertakings were in some cases accompanied by a guarantee that, if profits were not sufficient to cover the writings off agreed, the Minister would make good the deficiency by a cash payment. As a further part of many of these bargains, firms incurring capital expenditure were granted loans subject to interest, in order to meet such expenditure, the loans to be repaid, as a rule, from the profits subsequently realised and in any case by a specified date. The most notable cases falling under the second form of bargain mentioned above were the agreements made with large numbers of steel manufacturers in order to meet the increased steel programme.

Concurrently with this action by the Finance Department the Controlled Establishments Division allowed writings off on account of capital expenditure incurred, more especially in cases where firms had acted without direct request from the supply departments of the Ministry, and considerable friction between the Finance Department and the Controlled Establishments Division resulted on this account, and on account of the different methods of assessing writings off. Parallel to the consultative accountants and to the Settlers' Committee there was appointed, in July, 1916, an advisory Valuation Committee, the origin and composition of which is referred to below.¹ It was the duty of this committee to lay down principles for valuation and deal with special cases arising out of valuation, in a manner exactly similar to that just described in the case of the other two advisory bodies.

(d) RELATIONSHIP OF THE CONTROLLED ESTABLISHMENTS DIVISION TO OTHER BRANCHES OF THE MINISTRY AND TO THE BOARD OF INLAND REVENUE.

The division of functions between the Controlled Establishments Division and the Finance Department was never, in point of fact, satisfactorily defined, because the principles on which such a division should have been made were never clearly laid down.

Mr. Piercy, in a memorandum on the Controlled Establishments Division prepared for the Reconstruction Committee, summarises the position at the beginning of 1917 as follows :—²

“ In so far as valuation of extensions made by controlled owners with a view to determining allowances for writing down to

¹ See below p. 46.

² op. cit., HIST. REC./R/360/14.

post-control value is part of the work of computing munitions levy, this matter is of course outside the purview of the Finance Department.

"The action of the Finance Department may, however, in a sense run parallel to the operation of the C. E. Division in cases where the question arises of making grants to controlled owners on capital account in cases when they are asked to undertake special capital expenditure. It is conceivable that the Ministry might have adopted a general policy of making such grants as the ordinary method of dealing with the problem of special capital expenditure, in which case (assuming such grants to have been recognised for purposes of munitions levy as payments of a capital nature and to have been adequate in amount) the allowances claimable in arriving at profits for purposes of munitions levy would have been reduced to small dimensions and might have disappeared.

"No such general policy has been adopted but grants have been made in certain cases, and guarantees given in other cases."

No general policy was adopted because the difference between making a grant and remitting an obligation was apparently never clearly visualised. The real object of capital grants, as originally conceived by the War Office, was to enable firms whose capital and borrowing powers were insufficient, to extend their works and enlarge their output. The original object of allowances for capital expenditure was to maintain the equality of standard with taxable profits. Gradually, both of these methods of procedure became divorced from their original intentions, and grants were used to remit taxation and allowances permitted as an incentive to extend.

By an arrangement made with the Treasury in September, 1916, receipts on account of munitions levy were brought to account by the accounting officer of the Board of Inland Revenue. An account was opened with the Bank of England into which the levy due from the controlled owner was paid, and transfers were made from this account by the accounting officer of the Controlled Establishments Division, who, in fact, acted as an agent of the Board of Inland Revenue to the Board's Commissioners.

V. The Administration of the Act.

Towards the end of 1915, the large increase in the programme for shells and other munitions rendered imperative the immediate determination of definite principles for the application of the Munitions of War Act to firms laying down new plant. The practice actually adopted was to allow firms to write down the value of the new plant out of profits, to the probable post-war value of the plant (as determined by the Minister), and to write off exceptional wear and tear resulting from working under continual high pressure at rates also determined by the Minister. The practical difficulties of valuation were, however, considerable.

In the case of new capital expenditure, at first a liberal, but only a provisional writing-off was allowed, the proposal being that at the end of the period of control the whole assets should be valued and

adjustments made. Controlled owners, however, pressed for permission to write down to an agreed valuation figure at once, and, in July, 1916, Dr. Addison gave his consent, thus generalising a policy which had already been adopted in certain individual cases earlier in the year. It was argued, in favour of this step, that it was obviously preferable for the Ministry to keep abreast of its business and not postpone its more difficult problems for subsequent solution; that it enabled the contractor to know how he stood; that the Ministry would probably effect an economy, as the contractor would be willing to make some concession in consideration for immediate settlement, and finally, that it would, in all probability, be as difficult to find any exact data on which to base valuations after the war as it was then. The decision was no doubt a correct one, though whether there resulted any saving to the State is perhaps open to question. Nobody in 1916 foresaw the movement of prices in 1919, and the actual valuations made were far from being based on a forecast of the effect of inflation.

An advisory committee was set up to determine the principles of valuation and the amounts which should be allowed. Of this committee Mr. Seager Berry was Chairman and Mr. H. Catfield, clerk, and the past President of the Surveyors Institute, Mr. Basil Mott, and Mr. H. M. Jonas, Receiver of Crown Lands, who had already lent their services to the Ministry in an advisory capacity, were members. Mr. Stair C. Agnew of the Controlled Establishments Division acted as Vice-Chairman.

In September, 1916, Mr. Owen Smith circularised controlled establishments informing them that the Minister would be prepared "to favourably consider requests by owners to settle an amount to be written off as a final settlement in respect of any plant, buildings or machinery, specially erected or installed for munitions work." Difficulties, however, were experienced in dealing with the basis of such writings off. Numerous conferences were held with representatives of the Board of Trade and others, with a view to obtaining data for estimating post-war values, and gradually more or less definite standards of writings-off came to be fixed, though these necessarily varied according to the character of the business. Thus, for instance, in the case of works engaged upon the production of picric acid, the demand for which had been stimulated out of all proportion to the extent of its peace time use, the standard allowed was naturally more liberal than in the case of works devoted to the production of iron and steel. Similarly, the form of the plant established, its temporary or permanent character and the rapidity of depreciation had to be taken into account.

The system of writing down to post-war value thus gradually became generally applied whenever it was applicable. It was not, however, applicable in all cases. It did not assist the contractor whose probable margin of profit was not likely to exceed 20 per cent. on his pre-war profits or 8 per cent. on his new volume of capital. It therefore became necessary in some cases to make an actual grant or contribution in advance of the maturity of the firm's liability or possible

liability to pay munitions levy or excess profits duty. As a rule, such grants only became due on the completion of the extensions to the satisfaction of the Minister, a stipulation which enabled pressure to be brought if sufficiently rapid progress were not made. In other cases, what were known as tonnage allowances (so much per unit of output) were made.

The system which was gradually evolving to meet the problems arising out of the Munitions of War Act, however, necessarily became modified after August 1917, when the munitions levy became incorporated in the increased excess profits duty. Three distinct causes of difficulty emerged. (1) The negotiations with firms concerning such special abatements had necessarily to be approved by the Board of Inland Revenue, which was responsible for the collection of the excess profits duty, and thus by a Department other than that which was directly interested in the abatement being made, and moreover being made promptly. (2) The 1917 Finance Act, which did not actually become law until August was, retrospective to 31 December, 1916, and a certain amount of confusion arose on account of arrangements made by the Ministry of Munitions with contractors during the first seven months of the year. (3) The 1917 Finance Act did not allow for abatements or special agreements on all the grounds valid under Section 5 of the Munitions of War Act and the administrative rules drawn up thereunder.

The manner in which the first of these difficulties was overcome, so far as it was a purely administrative problem, will be considered later.¹ The arrangements made between the Board of Inland Revenue and the Ministry of Munitions in regard to the agreement into which that latter Department had entered with contractors before August, 1917, are set out in detail in a letter dated 28 June, 1917, addressed from Somerset House to Mr. Owen Smith.²

“As respects the assessments of munitions levy on profits up to 31 December, 1916, whether the assessment is made by the Ministry before the transfer of powers takes place or by the Board of Inland Revenue afterwards, the agreements (which relate to the Munitions Levy) will be respected in full.

“As respects excess profits duty on profits arising after 31 December, 1916, the Board will accept the quantum of allowances fixed by the Ministry, and still remaining to be made, so far as of a character admissible in the Excess Profits Duty (viz. depreciation allowances).” . . .

“Neither a transfer of the duty of assessing Munitions Levy, nor the repeal of the Munitions Levy at any date, nor a proposal to alter the rate of Excess Profits Duty, alters the character of the questions arising as to the application of the agreements in any material aspect.” . . .

“The position as regards excess profits duty is that in computing liability to duty the Board accept the quantum of allowances fixed by the Ministry so far as falling within the principles of

¹ See below p. 51.

² HIST. REC./R/400/41.

the excess profits duty. This position rests entirely on working arrangements which have been entered into with the controlled firms."

The foregoing statement is explicit enough. The Board of Inland Revenue respected the agreements which the Minister had made under the Munitions of War Act and the Rules made thereunder with reference to allowances for depreciation, writing down capital expenditure and excessive wear and tear as not repugnant to the provisions of Finance (No. 2) Act, 1915.

The provisions of the excess profits duty did not permit of allowances for "exceptional services rendered by a controlled owner"¹, or recognise Rule 10 of the Rules under the Munitions of War Act, by which allowances were made in respect of additional output.² They did, however, allow special writings-off (to post-war value) on account of exceptional wear and tear, and on account of capital expenditure specially incurred for the purpose of munitions work.

The general effect of the differences between the two Acts was to make the Ministry revert again to the practice of making grants to contractors. In all cases in which this procedure was applicable no great difficulties arose. In the case of uncontrolled firms which had not been subject to munitions levy, this was the normal procedure, whenever writing down extensions to post-war value out of the excess profits did not suffice. Such grants were necessary when the contractor was unwilling to undertake capital expenditure without assistance, either on account of the general risk involved or on account of the delay which would occur before he could reimburse himself from his writings-off. In the case of controlled firms, to the extent that the conditions laid down in the Finance Act 1917 permitted, allowances were granted from excess profits and in accordance with an arrangement made in September, 1916, the Board of Inland Revenue, whenever possible, fixed the amount of the allowance in advance. When, however, such allowances were insufficient or agreements between the Board of Inland Revenue and the contractor could not be made with sufficient rapidity, the Ministry resorted, as in the case of uncontrolled firms, to the system of capital grants, making the proviso that the amount of writing-off allowance eventually given under the Finance Act in respect of extensions should be repaid to the Ministry. In some cases, however, a capital grant did not solve the problem at issue. It was impossible, for instance, to interpret special allowances made for increased output as capital grants. They were definitely revenue allowances and, as such, would themselves be subject to excess profits duty. On 4 June, 1917, a meeting was accordingly held at the Treasury at which both the Chancellor of the Exchequer and the Minister of Munitions were present, with a view to arriving at an arrangement whereby the Minister would be able to reward increased output in some suitable way, in cases where such reward appeared to be both fair and necessary. It was decided at this meeting to leave it, in the first instance, to the officers of the

¹ HIST. REC./R/400/41.

² 9 (E) of *Munitions (Limitations of Profits) Rules, 1915*, (See Appendix II.)

Board of Inland Revenue and the Ministry of Munitions to endeavour to come to some inter-departmental arrangement, the Chancellor of the Exchequer being definitely opposed to any modification of the proposed Finance Bill. The agreement finally reached was incorporated in three specimen letters,¹ drawn up to cover the main groups of conditions which were likely to arise. The first covered the case of the owner of an ironstone mine with a comparatively small capital, who apprehended that the excess profits duty might prevent his receiving an income sufficient to ensure both an adequate return on his capital and compensation for exhaustion of his fixed capital. The Ministry undertook to pay on his behalf such a proportion of the excess profits duty claimed from him, as should suffice to raise his retained profits to an amount (to be defined) which should represent normal interest on the capital invested and an allowance for exhaustion of capital reckoned at so much per ton of ore extracted. In the second specimen letter, the Ministry agreed to pay a definite percentage of the excess profits duty, and, in the third, to pay such an amount thereof as would leave the firm a definite percentage of profits on the capital involved in the particular contract with the Ministry, for which the allowance was being made. In each of these cases the contractor, for his part, forwent his claim to any deduction for the purpose of his income-tax return beyond the amount of the excess profits duty actually paid by him.

Assistance of this sort rendered by the Ministry of Munitions was, in effect, in its ultimate analysis nothing more nor less than capital grants. In a letter dated 14 May (before the three letters referred to above were drawn up), Mr. Hopkins of the Board of Inland Revenue defined the limits within which such grants would be exempt from the imposition of excess profits duty. "Speaking generally," he said, "these would be payments related to the capital of a business, the purchase of a business or the remuneration of a servant, but not to the production of commodities. . . . We understand you contemplate non-taxable payments of this kind only in the exceptional cases calling for them." On 3 July, Mr. John Mann, in a letter to the Board of Inland Revenue covering the three specimen letters, stated that "The Minister does not propose to make a practice of granting such letters but to reserve them for exceptional cases of difficulty." He further promised that "details of all cases when special arrangements are made will be notified to the Commissioners."² The Board of Inland Revenue assented to the proposal and further agreed that such grants would not be subject to excess profits duty. In practice, however, undertakings of the nature contemplated in this letter were rarely given. But in spite of the arrangements made, difference between the two Departments was not wholly obviated. Obviously diverse views might be held as to what were "exceptional cases," but the Ministry had placed itself in an extraordinarily difficult position at the outset, owing to the fact that, all output allowances automatically came to an end on 31 December, 1916.

¹ M./Gen./116.² M./Gen./116.

The difficulty really arose from a confusion of thought ; neither the staff of the Ministry nor the contractors were fully alive to the fact that munitions levy was in no proper sense a tax, that it was an impost collected not by the taxing authorities of the country (the Commissioners of Inland Revenue), but by a non-taxing authority (the Ministry of Munitions), and, further, that it was not imposed for fiscal purposes but for purposes that were largely political. When, therefore, munitions levy was abolished by statute and the controlled firms (who alone were liable to that impost) found that they were subject in all cases, and not in some only, to excess profits duty (which was a tax proper), and when they further found that the Commissioners of Inland Revenue could but enforce the taxing-acts as they found them, without regard to arrangements made by the Ministry of Munitions in connexion with an impost over which the Ministry and not the Commissioners had had control, they, the contractors, felt aggrieved when the Inland Revenue Department expressed itself as unable to give effect to those relief measures which the Ministry had granted as a spur to energetic production called "output allowances." In fact, however, the position of the contractor was not as bad as he thought, for while munitions levy was an impost which took from the contractor 100 per cent. of his profits over a standard, excess profits duty was an impost which never took more than 80 per cent. of such profits and varied from year to year. Therefore the contractor had, in fact, a taxation benefit which amounted to a set off against the lost advantages of output allowances. Apart, therefore, from the exceptional cases (very few in number) which were dealt with under the terms of the three letters above referred to, the Ministry consistently refused to acknowledge any liability to contractors for allowances for increased output after 31 December, 1916, when munitions levy came to an end. In this the Ministry was justified, for all the benefits given by it in virtue of its control of munitions levy were benefits which were intended and expressed in the contracts to have effect only so long as the contractor's accounts were being dealt with under the Munitions of War Act, 1915.

Of the 15 cases actually allowed and completed up to the end of February, 1918, four were mines, the owners of which demanded that their profits per ton should not be diminished, and three were also mines, the owners of which demanded that their profits should in effect not be lower than they would have been had the munitions levy not been replaced by the excess profits duty. The majority of other cases were either dumps or special veins of ore, which nobody was willing to work without special inducements. Of the first seven cases it may be said that the owner, and probably the Ministry, held views on the justice of the system of taxation imposed diverse from those of the taxation authorities, and that the owner was in a position which enabled him to force the hand of the Ministry and induce the Ministry to force the hand of the Board of Inland Revenue. Further, it would almost appear beyond question that the argument of the owner on the point of strict justice, apart from all considerations of the desirability of tempering justice with generosity in war time, was sound.

He objected, not to payment of taxes on his income, but to paying a recurrent tax on his capital. In the majority of the other cases the Ministry was simply offering a special price for a special service. It would appear, however, that one of the great advantages of the replacement of the munitions levy by the excess profits duty was precisely that it rendered it more difficult for the Ministry to offer a special price.

The question of output allowances, however, did not by any means constitute the only problem which this change raised for solution. The particular difficulties were met with in connection with those firms to whom the Ministry wished to make advances of working capital. A number of firms who had made considerable profits by the end of 1916 had devoted the greater part thereof to increasing their works, and hence had to carry heavier stocks. All firms were affected by the general rise in prices which involved the necessity of a larger sum of free capital to cover a given stock of raw material. The Ministry was anxious, therefore, that firms in the former category, at any rate, should be allowed to pay their excess profits duty by instalments, so as to avoid a reduction in their output. After a considerable discussion on the subject between the Departments concerned, the Ministry wrote to the Treasury on 11 October 1917 putting the whole case, and suggesting that the only apparent alternative for the Ministry would appear to be (a) the grant of such a sum as might be necessary to maintain the firm's working capital after payment of excess profits duty, or (b) allowing the firm to make a fresh capital issue. The second alternative, however, would of course have involved recourse to the Treasury Capital Issues Committee. The Ministry, therefore, asked for a ruling from the Chancellor of the Exchequer.

- (a) "Whether in such cases the Board of Inland Revenue are to grant either postponement of payment of Excess Profits Duty, or payment by instalments.
- (b) Whether the Ministry is to advance within the limits stated above (*i.e.* such sum as was necessary to maintain the firm's working capital), or
- (c) Whether firms are to be encouraged to apply to the New Issues Committee for permission to issue capital necessary for working capital."¹

At the same time as the question of granting loans to contractors to enable them to meet their liabilities for excess profits duty was thus becoming urgent, the very greatly increased programme for aircraft construction was placing a severe strain on the finances of the firms engaged upon aircraft production. It was, therefore, decided to establish two inter-departmental committees, one of which should consider the question of the assistance to be rendered to contractors in connection with the excess profits duty liabilities, while the other should consider the best policy to be adopted in connection with the necessary advances to be made to aircraft factories.² On the former of these committees, the Treasury, the Ministry and the Board of

¹ M.C. 134.

² *Ibid.*

Inland Revenue were all represented, whereas on the latter the last mentioned Department merely had an officer in attendance. In practice, however, the latter committee became merged almost at once in the former. The system ultimately evolved as the result of the establishment of the committee and the experience gained was that, while the Ministry was empowered to make advances to its own direct contractors for working capital when the weight of taxation tended to limit their output, that right was not extended to cover indirect contractors whose output was essential to munitions supply, unless application to both the Treasury Capital Issues Committee and the Board of Inland Revenue had been made. Concurrently, instead of the Ministry's grant being accepted by the contractor in lieu of his right to claim special allowances under the Finance Act, a new form of contract was adopted, under which the contractor was obliged to prefer his claims for excess profits duty abatements, and pay over to the Ministry whatever sums he thus succeeded in obtaining up to the amount of the Ministry's contribution, and 80 per cent. (the percentage ruling for the excess profits duty) of anything over that amount.

There remains to be considered the question of the incidence of excess profits under co-operative contracts. As explained above,¹ under co-operative contracts the Ministry fixed a standard price for certain commodities, the contractor was to be paid actual cost plus, if cost were less than standard, a proportion of the savings. In the case of the Venesta Company, the Ministry and the contractor were to share the difference equally and the Ministry further agreed to the excess profits duty on the firm's share of the profits. The Board of Inland Revenue, however, refused its sanction. But it remained open to doubt whether the contractor under such an arrangement would not be liable to pay excess profits duty, not only on the share of the profits which it retained, but also on the share which it had undertaken to hand over to the Ministry. Accordingly, on 7 February, 1918, Sir L. Worthington Evans wrote to the Treasury asking for a ruling on this point and suggesting that the excess profits duty should be charged only on the share retained by the contractor, the Ministry's share being considered as a price discount. To this proposal the Treasury gave its assent.

¹ See above p. 11.

CHAPTER III.

THE ISSUE OF MATERIALS.

I. Introductory.

(a) SYSTEMS OF MATERIAL ISSUES.

The Ministry contractors were not only assisted with grants and advances in money ; they also received advances in kind. As the war progressed, it became necessary for the Ministry, not simply to fix the price of the materials required for the manufacture of munitions, but in many cases to purchase the whole or a part of those materials themselves. Once such purchase was effected, it was open to the Ministry either to loan that material to its contractor for manufacture, or to sell it outright and purchase back the finished article.

In the earlier part of this Volume, some account has been given of the systems of issue in connection with the difficulties which the variety of practice caused in the Accounts Department, more especially down to the close of the year 1916. It is proposed in this chapter to review the considerations which influenced the Ministry more especially during the last two years of the war, in dealing with the question of the desirability of disposing of the raw material it acquired, by some system involving the temporary financing of the contractor or by outright sale. It will be convenient, however, first to resume the leading points of the account already given.¹

The original intention was that material sent to be worked up at national factories should be issued "free," while materials sent to contractors should be paid for on receipt. It was soon discovered however, that contractors were in general unwilling or unable to pay cash, and in November, 1915, a third system was introduced, whereby the payment was made "*per contra*" by deduction from bills. In some cases, however, as for instance that of filling shells, "free issue" was allowed to contractors.²

In order that such a combination of different systems should work satisfactorily, several conditions had to be satisfied. The terms of contract had to be perfectly explicit and all issues had to be immediately reported to the Stores and Accounts Departments. The forms of advice (advice notes) which governed the movement of material were designed to give complete information. It was necessary to have an adequate check upon possible wastage in the use of materials at contractors' works. Finally, the system of book-keeping had to be capable of recording each transaction accurately.

¹ Vol. III, Part I, Chap. II. Section 5.

² Contracts Branch Memorandum No. 29; 94/Gen. Nos. /234.

It has already been shown why none of these conditions could be satisfied in 1915-16.¹ In the earliest transactions, a considerable proportion of the contracts provided for free issue, the price being paid only for operations performed by the contractor. At this time, the stores organisation was only in its infancy ; a large number of issues were not reported by the supply departments to the stores and accounts departments ; the forms of advice inherited from the War Office were inadequate for the new work to which they were devoted, and, even after the Ministry had brought in its own forms at the beginning of 1916, irregularities continued. There was in fact no proper control even on paper until the Central Stores Branch was set up in May, 1917. When the Internal Audit Section was, therefore, instituted in the spring of 1917, the most complete confusion was discovered, and in September, 1918, shortly before the Armistice, Sir Gilbert Garnsey reported that as a result of the protracted labours of himself and Mr. Guy, they had charged contractors for over £8,000,000 worth of material supplied up to 31 March, 1917, but not previously accounted for, and had discovered that a further £680,000 worth of goods had been supplied to Munitions Committees and Boards of Management but not invoiced, and that material to the value of a further million sterling had been invoiced but omitted from the Ministry's records.² In the case of the national factories, it was found that the error made in charging for materials and granting credits amounted to almost exactly 10 per cent. of the total transactions.³

This state of affairs was not the result so much of any inherent defect in any one of the systems, as of the absence of the necessary machinery for their administration.

All three systems gave rise to difficulties. Under the *per contra* system payment should have been made by deduction from the price of finished goods. In practice, however, the Stores and Accounts Branches were not duly notified when the authority for the issues was given. The price of issue was not in most cases fixed when agreements for the supply of material were made. The congestion of work in the Stores and Accounts Departments added to the difficulty of determining what sums were to be deducted from bills.

The same difficulties tended to delay the recovery for materials issued on terms of repayment in cash. Further complications resulted when, as sometimes happened, firms who had agreed to pay in cash, owing to their financial conditions made subsequent arrangements for recovery to be on the *per contra* basis.

Moreover, confusion was rendered worse confounded by the practice adopted by some of the supply sections of mixing these systems for the same contractor and the same material. This was repeatedly pointed out by the Accounts Department, and even as late in the war as the autumn of 1917, this fact attracted the attention of the Internal Audit Section. "We find," the section reported, "a number of contractors have contracts with the Ministry (many

¹ Vol. III, Part I.

² Vol. III, Part I.

³ Report of Accounts Department for six months ending 31/3/19 (Hist. Rec./R/450/17).

concurrently) where identical materials are supplied on the one contract 'free,' on the other for cash. It is obvious that the contractor could not, if he desired, distinguish between the two stocks. A stock on hand for manufacture or the 'free issue' contract must frequently be used on his 'cash' contract and consequently we must be paying in the finished price of his goods for our own materials."¹

In the re-organisation of stores and accounts which took place in the early part of 1917, measures were taken both to clear up the confusions of the past and to introduce those essential changes in stores organisation and book-keeping, which would enable the Ministry to record its transactions properly in the future.²

The greater part of the financial year 1917-18 was occupied in getting the new system established and in working order. While the necessary framework was thus being provided, the question remained whether all the three systems of material issues should be continued, or whether an endeavour should be made to eliminate the more difficult methods.

The object which it was desired to attain was, of course, the establishment of a system which would combine financial economy with efficient control over the use to which materials were put. To do so, however, was no easy task.

(b) "FREE" OR "STOCK" ISSUES.

As a general principle it may be accepted that the system of free issues was the most economical when the character of the industry rendered such a system possible. "Free issue" was defined by Mr. John Mann in his evidence before the Public Accounts Committee in 1917 as "an issue of material where the record is kept in quantity, not in price."³

In effect, the system was simply one of manufacture on commission. Commission manufacture, however, is only possible where it is possible to lay down a definite scale of quantities required for given commodities, when the material supplied is easily identifiable, or when the firm accepting the contract is wholly engaged upon that contract, or when it is immaterial whether the actual raw material supplied is worked up or other similar material substituted. It is obviously impossible on a large scale, if the honesty of the contracting firm cannot be guaranteed, if the raw material is radically altered in the process of manufacture and substitution of inferior material or adulteration is not easily detected. Likewise, it is extremely dangerous when, although adulteration may be difficult, the proper percentage of waste in manufacture is difficult to ascertain. Similarly, it is difficult to safeguard adequately the right of property in material, supplied free, which loses its identity in the course of manufacturing operations. When the necessary conditions obtain, however, it is economical, because the manufacturer, not having to finance the operation, makes

¹ Report of Accounts Department for October 1917 (HIST. REC./R/450/17).

² See Vol. III, Part I, Chap. III.

³ *Report from Committee of Public Accounts, with Minutes of Evidence*, 31 July 1917. Qn. 2495.

no charge therefor, and, being involved in no risk as regards material, charges or should charge nothing as an insurance against risk. But only relatively seldom did the necessary conditions obtain. On the other hand, commission manufacture was unavoidable in some cases when they did not obtain (as for instance in filling shells), on account of the great value of the material which was already the Ministry's property as compared with the small cost of the actual operation to be performed.

(c) ISSUE ON PAYMENT.

The outright sale of raw material owned by the Ministry to the contractor for cash involved the least risk of financial loss through loss of interest or the failure of the contractor, and the least risk of the loss of the store. The possibility of material being used for wrong purposes was, of course, by no means done away with.

So long as there was a real scarcity of the material (and there was a real scarcity of almost all materials), and more important still, so long as the controlled price at which the commodity was sold to the contractor was appreciably lower than the actual market value of the commodity, a risk of misappropriation existed, though the risk was, of course, less than when no charge was made. But sale for cash had the serious disadvantage that the contractor expected to be paid for financing the purchase, and it was, moreover, only possible when he was in a position to finance it. When he was not able to do so, and commission manufacture was likewise impossible, the only alternatives which remained were the grant of a loan of funds or the grant of a loan of the material. As the funds were only required for the purchase of the material already in the possession of the Ministry, the second alternative was that actually and naturally adopted, although, late in the war, the first received strong official support.

(d) PER CONTRA ISSUES.

The *per contra* system thus arose naturally out of the control of materials and their supply from Ministry stocks. The sub-division of contracts rendered it increasingly necessary for the Ministry to supply raw or partly manufactured materials. It was at first the intention that cash payment should be made for these supplies, but the increasing demands on contractors, and the difficulties of manufacture, made it difficult (and in many cases impossible) for them to pay cash. As a result, it was agreed that recovery for material should be made concurrently with payment for finished product, and, in the earliest transaction of this character, agreement was reached with the contractors concerned that interest should be charged on the value of material supplied, until the date on which payment for finished product became due.¹

Later it became the accepted practice to arrange in making contracts that issues of material should be made and recovery of value effected *per contra*. It will be realised that the Ministry, having in this manner undertaken the task of financing purchases of materials,

¹ e.g., Contractors working under the Manchester Munitions Committee.

should have secured reduced prices for finished products, but it is doubtful whether any reduction was in fact effected, and at no time was the practice of making contracts on this basis sufficiently stereotyped for close comparison with other types. The system of *per contra* recovery for issues again needed, in order to ensure satisfactory working, accurate and punctual notification to the accounting branches of issue of material, a clear understanding as to terms of issue and quantities required, and the contemporaneous existence of no other system of issuing similar material to the same contractor. In practice none of these conditions obtained.

One other point of interest in connection with issues of material must be mentioned. It might be supposed that under the system of free issue of materials and under the system of recovery *per contra*, the right of property in the material supplied would at no time pass to the contractor. If it had been possible to mark materials in such a way that they could be identified at all stages of manufacture, no difficulty would have been experienced in this respect, but in the great majority of cases materials lost their identity in course of being manufactured, and at no time was it possible to safeguard fully the right of property in Ministry materials in the hands of contractors. This drawback was absent in the case of issues on repayment, since the right of property passed definitely to the contractor.

In the following pages is traced the outline of the discussions which actually took place concerning the problems just discussed. In these discussions the fundamental problems often became submerged under other considerations: the question of administrative decentralisation, of financial responsibility, of staff or accommodation.

II. Proposal to Abolish Free Issues.

In the early part of 1917, the overhauling of the accounting system by Mr. Guy brought into prominence some of the defects of the method of free issues. The Finance Department reported to the Financial Advisory Committee that there appeared to be no sufficient machinery for securing that a proper *quid pro quo* was obtained from contractors. The committee suggested that this was the duty of the supply departments. The Finance Department, however, was not satisfied that it would be adequately performed. The Ministry Finance Board, on 3 April, agreed in principle that the initiative rested with the Finance Department. It was considered that the information required for providing a check on contractors was contained, or should be contained, in the books of the two great accounts branches M.F.1 and M.F. Materials. The finance branches should secure, before a contract was closed, that information as to material issued free had been duly obtained. The percentage allowed for waste ought to be fixed on the contract and the matter reviewed at the termination of contracts.

Mr. Guy and Mr. Garnsey, in their report for April, 1917, recommended the abolition of the free issue system. They stated that the supply departments did not always specify the quantity of output which should be produced from a given quantity of material, or

exercise any proper supervision or guard against unnecessary accumulations of stocks at contractors' works. The question had been very thoroughly discussed at a meeting between the finance and supply departments in February, when it was acknowledged by the latter that in many cases no check was kept, or indeed in certain circumstances could be kept. "We have contractors who fill and we supply them with all materials. We have not any means of checking the amount we send. We send generally more than they want."¹ In most cases the Raw Materials Department was not informed of the firms' output by the supply departments, nor was any account taken of rejections. It was thus only possible for control to be exercised when the supply department happened to be itself controlling the material for manufacture, and in these cases, if the supply of the material was ample and economy became thus a purely financial consideration, that control was often not exercised. Further, even when the attempt was made, there was no general machinery for comparing stocks in the manufacturers' hands with weekly output and input.

Two facts rendered control difficult. With the continually changing programmes and specifications, the allocation of material delivered to a particular contract became a matter of extreme intricacy. The contract might be cancelled and another substituted, half a dozen new contracts for the same thing might be placed before the first was finished, more raw material might not be forthcoming at any given moment and the contractor would be instructed to use what he had received for one purpose for another, until more was forthcoming. Such difficulties were real; but they were not insurmountable.

The second difficulty arose from the fact that material supplied by the Ministry was used on contracts other than for the Ministry of Munitions. A complete survey would have involved periodic censuses of all contracts, censuses which were in fact taken to a limited extent for some non-ferrous metals.

There can be no doubt that this lack of general control must have resulted in serious loss of material. There is strong reason to suppose that when the material was issued free the loss was the greatest. In the opinion of the Internal Audit Section, free issues were in these circumstances, too dangerous to continue. They recommended that new contracts should provide for the charging of all materials to contractors and payment for them in cash; and that, where it was possible, existing contracts should be redrawn on the same terms.

This report was accepted as the basis of a policy which the Finance Department should insist upon being adopted, and that department embarked upon a campaign against free issues that lasted until the Armistice; but, before relating the history of the further attempts to secure the adoption of a general policy opposed to free issue, it may be well to show the action immediately taken.

One of the principal examples of free issue at this date was the contracts for filling. In these cases, the value of the explosives supplied was very greatly in excess of the cost of the actual operation of filling, and the supply departments stated their inability to lay down scales

¹ Evidence before the Advisory Committee, February 1917 (A.C. 54).

of use for explosives. The Contracts Department objected to issue on payment because (1) the absence of scales of materials required made it impossible to calculate a fair price, and (2) the fixing of a price for filled ammunition, etc., would result in contractors charging heavily for finance, insurance, etc. The contractors themselves expressed their inability to record use for the Ministry of Munitions or the Admiralty, or for different contracts. The Finance Department, therefore, stationed auditors at contractors' filling factories, whose duty it was to record the receipt and use of filling materials, to work out scales of materials required and generally to secure adequate returns for Ministry material supplied. The Finance Department proposed concurrently the institution of adequate records in regard to the issue of metals to contractors.

The Assistant Financial Secretary explained to the Public Accounts Committee on 27 April, 1917, that the Department was trying to abolish free issue.

"We are very anxious and are endeavouring to supersede it by the method of fixing a nominal cash basis, in order to call in the equivalent at the end and reduce the possibility of loss or waste. If I might exemplify the point, in the Explosives Factories, where we have managed to mature the scheme, we have now practically resident auditors at all the Factories where material for loading shell and fuzes is distributed, in order to see that this Explosives material is fully accounted for. It is nominally on free issue, but there is accountability for it which is really difficult to follow up, and we are endeavouring to attach a money value to pull in the results."¹

Mr. Mann pointed out that the reason why many contracts provided that metal should be obtained from the Ministry was that the price fixed in the contracts was on the basis of a standard cost of metal controlled by the Ministry. The contractor was thus relieved of the risk of fluctuations in the metal market. But the difficulty of securing a *quid pro quo* in output was very great, because the experts' estimate of what the allowance for waste and loss should be varied widely according to the differences of the plant used by different firms. Hence it was extremely difficult to carry out in detail the procedure now adopted, which was to measure the quantity taken against the quantity required.²

Mr. Mann directed that a Metal Accountancy Section should be formed, with the duty among others, of drawing up conversion tables for use in cases where the contractors returned goods to the Ministry in a different form from the materials supplied. The supply departments were called upon to furnish scales of conversion. The question was referred to the Minister. Mr. H. A. Fortington, Director of the Statistics and Requirements Section in the Non-Ferrous Metals Department, proposed a reorganisation of the records on lines which would ensure that the Ministry should know the distribution and movement of all metal containing copper or spelter, and that every transaction

¹ Report of Public Accounts Committee, with Minutes of Evidence, 31 July, 1917. Qn. 2496.

² Ibid. Qn. 2680, 2683.

could be translated into its financial equivalent so as to guard against omissions in accountancy. In discussion at the Finance Board, on 12 June, 1917, it was agreed that nine-tenths of metal accountancy was a matter of accounting, rather than book-keeping. What the accounts section needed to know was the amount of metal sent to contractors, the scales on which they used it for making brass rod, strip, etc., and the percentage of waste to be allowed. On 3 July, the Finance Board appointed a committee to draw up a scheme of accounting for inclusion in a more general scheme for the control of metal distribution, which was being considered by a number of committees in the Ministry.

The duty of checking conversion tables furnished by other departments rested with a section of the Department of Requirements and Statistics. The Assistant Director of this section stated, in evidence before the Financial Advisory Committee in July 1917, that the only accurate tables in his possession were those for guns and gun ammunition. The conversion tables then in existence were not, in his opinion, sufficiently accurate for accounting purposes, but he considered that they would show whether waste was going on or not. It appeared that his department had not called upon the supply departments to furnish tables, and that the Accounts Department had not pressed them to do so.

In July, 1917, at the request of the Assistant Financial Secretary, a meeting was held at which representatives of the Finance Department, Mr. Guy and Mr. Webster Jenkinson, discussed with representatives of the supply and contracts branches concerned with metals, the best methods of keeping an efficient check upon metals supplied to contractors, other than filling contractors. It was agreed that the fundamental question was whether metal should or should not be issued to the contractor without charge. Mr. Guy observed that the Accounts Department was not concerned until the supply and contracts branches had settled this prior question. Accordingly, a second meeting was held without the finance representatives. The following recommendations were made :—

- (1) That it was essential that metal records should be kept by the contractor and by the Ministry, and that appropriate returns should be made by the contractor to enable these records to be agreed ;
- (2) That the appointment of a few inspectors, charged with the duty of dealing with these records from a technical point of view, was a necessary adjunct of (1) ;
- (3) That the keeping apart of the amount payable to the contractor for the work on metal issued and the cash values of the metal issued and returned, was the simpler method of procedure ; but that, if it was considered desirable that metal be charged to the contractor, all the constituents (virgin metal, scrap and swarf of various grades) should be charged at the mixture price, after allowing for the appropriate loss in weight by volatilisation and otherwise, and after standardising the scrap and swarf into appropriate grades, the volatile loss on each grade being a definitely fixed rate arrived at after experiment.

The meeting recorded that, while their recommendations referred primarily to non-ferrous metals, it was felt that a similar system would apply to other metals and materials issued to contractors, though possibly not in all cases.¹

III. Policy of the Finance Department with regard to Free Issues.

On 24 July, 1917, the Ministry Finance Board debated the question of free issues with a view to formulating the Finance Department's policy before entering upon a general office discussion.

The first point to be considered was the possibility of introducing a uniform system for all contracts providing for the supply of metals and components. There appeared to be alternative means of attaining such uniformity :—

- (1) Either all metals and components could be issued at a price, and contracts made at a price including cost of materials and work done, or
- (2) All issues could be free issues and contracts made at a price including only the cost of work done, a check being imposed on the contractor's use of metal and components.

After a discussion of both systems, it was agreed that the Finance Department must be responsible for recording transactions, since the contract ledgers would probably continue to be the most trustworthy records in the Ministry. The meeting considered that a uniform system, whether (1) or (2), would be preferable to the present diversity of method. Against the introduction of any uniform system it was urged that it would entail very great changes in contract prices, with a probable loss to the Ministry, particularly in the change from free issues to issues against cash. The danger of the cash issue system was that the contractor might load his price by a charge to cover both loss of materials, and profit on materials, with a consequent loss of much that had been gained by the Ministry in earlier negotiations. The objection to the second alternative was the danger of the accountancy check breaking down.

It was agreed that (a) the Finance Department must undertake the compilation of records ; (b) for each class of metal or components, uniform prices should be fixed for all contracts ; (c) the Finance Department must agree to contracts being made on either of the two systems discussed, bearing in mind that the sale of materials was preferable to free issues, and that all contracts for a given type of goods should be on the same basis ; (d) where free issues were made, a record must be kept in a metal ledger (which might, as at present, be incorporated in the contract ledger) and reconciled with contractors' monthly statements ; and these statements must be certified by the metal accountancy staff, and cash debit made for waste of material beyond reasonable (or contract) percentages ; (e) the metal accountancy might extend to sales of metal, but the Finance Department, while holding its

¹ Financial Advisory Committee, Remit 19, Summary of Evidence, 20 July, 1917.

records available for check, would be clear on making cash recovery for quantities issued.

The matter was further considered at a special meeting on 27 July. The arguments for and against the alternative systems were recapitulated and discussed.

In favour of cash issue, it was urged that contractors, if they were required to pay, would guard against holding a surplus stock. The method would fall more readily into the accountancy system, would be more easily defended against public criticism, and was more reliable in view of the difficulty of providing a complete check on stock issues. In favour of free issue, it was argued that the department would get the benefit of savings due to varying percentage of waste or degree of mixture. In some cases definite percentages could not be laid down unless the contractors provided against loss. Further, profit on material would be eliminated from contract prices.

The meeting agreed that uniformity could not be introduced without considerable loss. On the other hand, the cash basis could be laid down in (probably) at least two-thirds of the contracts made. The following resolution was accordingly passed :—

“ That this Board favours the general adoption of the principle of charging contractors with all metal, materials, and components issued to them and making the contract price cover the material as well as the work done thereon.

“ It agrees, however, that exception should be made in special classes of cases, and that Stock Issues should be permitted in such cases, as ;

(a) Repair and Salvage Contracts.

(b) Filling contracts.

(c) Cases where the percentage of wastage or the proportions used in mixture cannot be fixed in making contracts. Financial sanction will be required to any contracts made on this basis.

“ In the last class (c) the issues shall be recorded in Material Ledgers both as to quantity and at a standard value. These Ledgers should be kept by the Metal Accountancy Committee or by the Stores Department, and the actual use of the materials inspected and checked by the Metal Accountancy Committee.”

This resolution did not differentiate between “ cash ” and “ *per contra* ” recovery.

It was agreed to consider the suggestion that the records of the Reconciliation Committee (*i.e.*, the Internal Audit Section) should be carried on to the point where connection was made with the work of the Metal Accountancy Committee.

Store records, then being prepared in the Central Stores Branch, would supply data of deliveries of material to contractors and of the out-turn of goods. In principle, however, it was agreed that “ production ” departments should notify to “ supply of material ” departments the quantities of materials needed.

Uniform prices should be fixed as nearly as possible at the actual value of materials, and the same price should be used for all contract

sales for national factories, and for the stock issues of materials: The parallel recommendation of the Shell and Components Committee should be endorsed. The conventional price for issue should be regarded as a token price for issue, not as a price governing purchase.

IV. Contracts Department Memorandum No. 29.

By November, 1917, the principle of free issue had been very largely abandoned. But at the Munitions Contracts Board, on 9 November, complaints were reported from the Accounts Department that many free issue contracts still failed to provide for a percentage for waste or for charges for excessive waste. It was stated that free issues were now made chiefly on contracts for cartridge strip and for filling shell, and the Director of Projectile Contracts was accordingly asked to confer with the Accounts Department for these classes of contract. On the general question, the opinion of the Board was that, where it was easy to account for material issued, as in the case of forgings for machinery, the principle of free issue should be maintained because of the reduction it secured in the amount of profit. Where it was difficult to account for, as in the case of timber, the loss by excessive waste and misappropriation would probably outbalance any saving in profit, and issue on repayment was preferable.

The Director of Projectile Contracts reported, on 28 November, the results of his conference with the accounts officers. For cartridge strip contracts, the Director of Munitions Accounts was satisfied that the existing procedure was sound. It provided a record of wastage and based the contractor's profit on work done, not on total cost, including the value of expensive materials supplied by the Ministry. For filling contracts it had been agreed that a complete system of accounting at headquarters for all free issue should be installed. Monthly returns of the average wastage of each component or material and of all contractors exceeding the average were to be furnished by the Finance Section, which checked and reported the receipt and expenditure of Ministry stores at each filling factory. If the technical section of the Gun Ammunition Filling Department could not account for excessive wastage, the Director of Projectile Contracts was to warn the contractor, and, if necessary, terminate his contract. But it was thought undesirable to charge the contractor for excessive waste.

While the Finance Department was seeking to eliminate free issues, attacks were also made on other grounds, upon the system of issue for repayment in cash. The Munitions Contracts Board in December, 1917, resolved that it was highly desirable that the Ministry should retain property in the goods issued. It was doubted how far this was consistent with the present procedure of cash issue. The point was put to the Ministry's legal adviser, Mr. Strode.¹ The objections to cash issue were stated to be that, in a large number of cases, the contractor would not agree to it; when he did agree, it was not easy to recover the money; and if the contractor failed, the Minister's claim would rank only with other unsecured creditors' claims. Mr. Strode explained

¹ P.M./Gen./1146.

that he had always preferred free issue, as giving the best security to the Ministry. But he recognised the difficulties it caused in accountancy, and considered that it was necessary to choose between cash sale and issue *per contra*. For *per contra* issues he considered the Ministry was well protected, if the standard clause and the invoice as revised a year previously were used.¹ The defect was that they were not used consistently. Cash sale, on the other hand, provided no security, unless cash were paid on delivery, which rarely happened. The system should be rejected.

In a report on the draft Ministry balance sheet, dated February, 1918, Mr. Guy and Mr. Garnsey gave figures illustrating the slowness of recovery of payments for materials on cash issue.

Issued during week ending 29 August, 1917				£1,464,166	19	3
				£	s.	d.
Balance at	„	„	29 „ „ ...	1,456,830	9	3
„	„	„	26 September, 1917	849,717	3	2
„	„	„	31 October, „	309,986	16	5
„	„	„	28 November, „	121,972	2	2
„	„	„	31 December, „	94,604	18	3

The writers added :

" This indicates that cash sales are a fiction, as there is a substantial period of credit, and in many cases the closing of the cash sale is not by collection of cash but by effect against bills. It is probable that a reasonable material credit is necessary, and we therefore contend that an agreed figure for such credit, or better still a rate of deduction from bills, is the only sound method. To collect some items in cash and some by deduction from bills destroys all continuous records of the accounts."²

According to the terms of sale, payments for material issued for cash should have been made within ten days of the despatch of what were known as "receivable orders." Actually on 31 December, 1917, out of roughly £8,000,000 owing to the Ministry about £5,500,000 was overdue.

At the same time the Non-Ferrous Metals Department was arranging to issue metal, wherever possible, on a cash basis, payment to be made within one week of delivery. They were organising with the Accounts Department a system whereby they hoped to get prompt payment. The accounts branches were to deduct the full amount from the first bills. The Non-ferrous Metals Department wished to abandon the *per contra* system as soon as possible.³

In January, 1918, the Munitions Contracts Board prepared a departmental memorandum. The Board recognised that each system had its defects; by charging cash, a cash loss was risked; free or "stock" issues (as they were now to be called) involved danger of

¹ Contracts Branch Memorandum No. 79 (94/Gen/557). The clause and the invoice forms (M.350 A & D) had been revised so as to make it clear that free issues and issues on repayment remained the property of the Minister.

² HIST. REC./R/450/17.

³ Minutes of the Munitions Contracts Board, January, 1918 (P.M./Gen./1941).

waste of material; the position of *per contra* issues was not clear. The Board decided on 25 January that each branch director should submit a list of items grouped according as he considered that each of the three systems should be applied.

The Financial Secretary's Standing Committee simultaneously took up the question. Several bad cases of failure in the present diversity of system, had been reported. One contractor, Messrs. Rudge Whitworth, had used approximately £70,000 worth of cordite on a small arms ammunition contract under which they were not entitled to free issue. This sum had been recovered, but only because the contractor made a voluntary payment of the amount. It was feared that other cases might have occurred, or might occur. The Explosive Supply Department had had no record of contract terms, and had issued all the explosives free, allowing the contractor also to draw on the free stock for executing contracts for the Gun Ammunition Filling Department, for the Trench Warfare Supply Department, or for the Admiralty. There were also instances of excessive wastage. A certain filling contractor had had for the month of December a wastage of 40,207 lb. of ammonium nitrate on a specification quantity of 632,861 lb. The Standing Committee, on 13 February, 1918, agreed that the defects in control were mostly traceable to the combination of free issues with issues on repayment. They considered that free issues should be abolished, except in special classes of cases, on which the Controller of Contracts was requested to report. They thought it preferable to face an increased contract price for filling rather than risk large losses on wasted material.

A memorandum was accordingly issued, on 27 February, setting out the principles which it had been decided to adopt.¹ Attached to it were three lists of items described as follows:—

- (1) Principal classes of cases in which materials might be issued on stock basis;
- (2) Cases in which *per contra* issues might be arranged unless the contractor was able and willing to pay cash on delivery;
- (3) Cases in which it was specially desirable to arrange cash issues (which were always to be preferred to recovery *per contra*).

It was laid down that free issues were to be avoided in all ordinary cases other than those specified under (1), though it might be advisable where the contractor was financially weak, since this form of issue gave the Government a stronger hold on the material than issue by repayment. The contract was to provide for some margin of waste and for a price to be charged for any excess.

As a general rule contractors were to be charged for materials and components. The advantages were stated to be:—

- (1) A guard against surplus stock;
- (2) Convenience with regard to accounts;
- (3) Greater reliability, as compared with stock issues, for which it was difficult to maintain a complete check;
- (4) Public criticism was more easily satisfied.

¹ No. 29. (P.M./Gen./1146.)

Recovery *per contra* might be arranged for in two classes of cases, (a) when the value of the material was high as compared with the work to be done by the contractor, and the contractor agreed to reduce his price in consideration of the fact that he did not have to finance the material; (b) when the contractor could not pay for material before he received payment from the Ministry. "The reason for this is that, if the issue purports to be made on a cash basis under these circumstances, it amounts to allowing the contractor to purchase goods from the Ministry on credit, and, should he become bankrupt, the Ministry would only rank as an ordinary creditor for the value of the material supplied."

The lists attached to the memorandum omitted items which were still in dispute. The case of filling contracts was considered by the Financial Secretary's Standing Committee in consultation with the Director of Projectile Contracts and a representative of the Explosives Supply Department. It was generally agreed, on 13 March, that materials for these contracts must still be issued free, subject to a proper check on their use. An allowance for waste must be decided upon by discussion between the supply and contracts departments and fixed in the contracts. The Controller of Accounts reported, on 20 March, that the allowances for waste had been revised and settled. They would be incorporated in future in filling contracts and contracts for trench warfare supplies. It was decided that future contracts should provide for charges for excessive waste, and that charges for waste which had already occurred could be raised, probably for the last nine or ten months. It was expected that this would result in payments from contractors amounting to about £100,000.

The procedure thus decided upon was actually put into force as from 1 April, and in addition to the quantity records for free issues, value records were also kept by charging issues at standard rates and granting credits at the same rates (after allowing for wastage on conversion) to be deducted from the value of the finished products.¹

This decision to give preference to the cash basis which the Financial Secretary's Standing Committee decided, at the beginning of May, should, so far as possible, be generally enforced, met with the strong opposition of Mr. S. E. Smith, Assistant Controller of Munitions Accounts, who reported immediately after, that during the three months ending 1 May, 1918, 40 per cent. of the debits made for cash issues to D.M.A.19, had ultimately to be recovered *per contra*. Approximately, £500,000 of the material sold on a cash basis each week had to be collected *per contra* five weeks after the date of invoice. The weight of the opinion in the Ministry was, however, by this time definitely in favour of the cash system.² It was in fact obviously preferable when it succeeded, and not obviously seriously worse when it failed, than the alternative system which its failure brought automatically into operation.

During the spring of this year serious endeavours were made, partly as a result of the criticisms of the Comptroller and Auditor-General,³ to revise and complete the conversion tables for free issues.

¹ D.F.3./P.A.C./68.

² C.R. 4386.

³ D.F.3./P.A.C./70.

This work involved a certain amount of disagreement between the financial and the supply departments, and on 1 May the Controller of Accounts stated to the Financial Secretary's Standing Committee that he could not accept the ruling of the supply departments on the amount of waste to be allowed on filling contracts.

The Comptroller and Auditor-General in his report (March, 1918) on the Accounts for 1916-17, commenting on the work of the Internal Audit Department, observed :—

“ The problem of accounting for free issues, which is of prime importance . . . involves the creation of conversion tables for the check of output under the various contracts. The progress here appears to be much less than in other directions of the Internal Audit Department's activities.”

Replying to this point before the Public Accounts Committee, on 30 May, 1918, Mr. Garnsey admitted that the work of accounting for free issues had been slow, but this was due to its extreme difficulty.

“ It is very difficult indeed to say exactly at what stage the contractor has accounted for all the material he has received where his product is quite different from the material sent to him. We have got to get out tables ; we have to take what is called a master lay-out, showing the percentage of the material that he is entitled to use in making a given article, and it always differs from what in fact takes place at the contractor's works, and then there is a wrangle as to whether he has used too much of this article or of that article. I want to make it clear to the Committee that this work is much more complicated than the other work, and we shall not get along with this so rapidly as in the case of the other work.”¹

The scales of materials had been too liberal. For contracts under negotiation the Contracts Department was taking a less liberal scale drawn up by the Accounts Department. Contractors were accepting this and undertaking to pay for excessive waste. It was agreed that the scale should be reconsidered, and ultimately a reduction was made.

By July, 1917, a system of stores accounting had been instituted at filling contractors' works where projectile, trench warfare, or Admiralty contracts were being executed and explosives and components were issued free, and also at anti-gas contractors' works. Representatives were stationed on the spot to audit the books and returns relating to free issues, and to control wastage. As a result, the master outlays had been considerably reduced.²

On 6 March, 1918, the Financial Secretary's Standing Committee decided that stock should be taken, as at 31 March, 1918, of materials and components held by contractors in free issue. The objects were to ascertain the quantities still in contractors' hands, and to get into circulation any material which was lying unused. This stocktaking

¹ *Report from Public Accounts Committee with Minutes of Evidence, 1 August, 1918, Qn. 2109.*

² *Report of Accounts Department for June, 1918 (Hist. Rec./R/450/17).*

also enabled the Accounts Department to clear their accounts at that date, and start complete records thenceforth.

The Co-ordinating Committee of the Munitions Council resolved, on 4 March, that a return of materials which were not government property would take many weeks, and should not be demanded yet. The demand, which was made under the Defence of the Realm Act, was accordingly confined to stocks on free issue. By June, the great bulk of the returns had been received, and incidentally, considerable sums had been recovered from contractors.¹

V. Check on Materials Supplied to Contractors.

The problem of fixing responsibility for checking the use of materials supplied to contractors still remained unsolved. It was raised by the Controller of Accounts at the Financial Secretary's Standing Committee on 10 April, 1918. At the beginning of 1917, when the subject first came up for serious consideration, no department in the Ministry was in a position to undertake that responsibility. The position of the books at that date was described by Mr. Guy at the meeting held on 27 February, 1917, to discuss the question. For components purchased from America and Canada, Messrs. Morgan should have been credited, and invoice ledgers and contractors to whom goods were delivered charged. For a year and a half no charges to the contractor were made, because no invoices had "been sent to anyone for any components since the beginning of the Ministry." For the first six or seven months no records were kept of issues made by purchase from one contractor to another, and a recent case had just occurred of Messrs. Vickers obtaining brass rod from a firm for £25, whereas their contract called for £130 per ton. The £25 represented the value of the seller's services for rolling and milling, the raw material having been supplied free by the Ministry.

In his report for the financial year 1916-17, the Comptroller and Auditor General drew attention to the fact that in the spring of 1917 there was a "heavy increase in the charges raised against the Contractors without any increase in the movement of stocks." In point of fact, the charges for the five months ending March, 1917, amounted to £1,544,000, and for the five months ending August, to £3,060,000, being thus almost exactly doubled during the latter period. It was admitted that there was no increase in the materials delivered.² The reason was that, up to March 1917, the accounts sections were not kept fully informed of the movements of stores, and the contractors were in consequence not charged for material when they should have been. The information should have been obtainable from the issue warrants which gave the necessary instructions for the despatch of the goods; but, since over thirty members of supply sections had the right, acting more or less independently, to issue the warrants, it was natural that they should often fail to reach the Accounts Department. Moreover, when they were duly received it was very frequently

¹ Reports of Accounts Department for April, May, June, July, 1918 (Hist. Rec./R/450/17).

² D.F.3/P.A.C./52.

discovered that they did not contain the contract number or terms of issue. Mr. Guy stated that he had endeavoured to link up the issues of copper bands for the three months ending February, 1917, with the necessary documents, and in less than 2 per cent. of the cases could he make any entry in his ledgers at all.¹ It was accordingly decided to confine the right to send out issue warrants to the Central Stores Department, to insist that such warrants contained all the relevant information, and to have duplicates of such warrants sent straight from the Central Stores Department to the Accounts Department, instead of waiting for a signed duplicate to be returned by the consignee. In addition to the issue warrant it was of course necessary for the Accounts Department to be in possession of the advice note, the consignee's acknowledgment of the receipt of the goods, but, being forewarned by the issue warrant, that department was enabled to take immediate action if the advice note did not appear after a reasonable lapse of time.

It was as a result of the discovery that the new system resulted in a doubling of the Ministry's claims to contractors without any increase in liability, that the Internal Audit Section turned its attention to an inspection of the completeness of past claims, with results that have been related elsewhere.² In discussion it appeared that information concerning deliveries from the contractors reached the supply department interested in the output, but information as to material supplied was in many cases available only in the materials departments, and was still not collated with the records of output. Hence the materials department might issue material up to the full amount on the assumption that the deliveries were being made to time. If they were not, material would accumulate and lie idle.

When the question of checking the materials issued to contractors was raised in April, 1918, Mr. Garnsey undertook an enquiry in the Non-Ferrous Metals Department. As a result of his investigations, he reported,³ on 19 April, that there was no control, except where the same supply department was responsible both for supplying material and for output, as in the case of brass rod manufacture. Even if control existed it would not always cover the whole ground, because material (copper, spelter, etc.) might be supplied for contracts for, for example, other Departments of the public service. The Central Stores Department had not the staff required to build up complete records, and was therefore unable to furnish to the supply departments the information necessary for the exercise of efficient control. Hence the supply departments had kept records of their own as a means of checking contractors' accounts. Such records, however, were for the most part compiled from contractors' statements and hence, among other defects, took no account of rejections. He considered that the Central Stores Department's records should be completed and ought to be used.

Most of the supply sections had no detailed knowledge of the consumption of metals used by the other Departments of the Government ; but materials supplied by the Ministry were used for such contracts.

¹ A.C. 54.² Vol. III, Part I, Chap. III.³ C.R. 4395.

A general control, therefore, could only be instituted if based on a survey of all contracts placed by Government Departments. Mr. Fortington's Statistical Branch was then obtaining this, to a very limited extent, from statements voluntarily supplied by contractors. If contractors were compelled to furnish such returns, there would then be statistics for the total use of all metals, the Department consuming, the contracts on which the work was done, and the articles delivered. Failing this, no real survey of contractors' requirements could be made.

A sub-committee appointed to consider metal accountancy recommended that the statistics of non-ferrous metals, now partially compiled by Mr. Fortington, should be extended to cover all contractors handling any of these metals and alloys, and a compulsitor imposed, if necessary, on contractors, to take the place of all other forms and returns. Mr. Fortington explained his system, showing that it would provide a complete analysis of national consumption, which could be used for framing metal supply budgets and for rationing consuming Departments in case of shortage. The committee agreed to adopt the system as the basis of metal accountancy, and to work it side by side with the existing practice until it should be clear that it would meet all needs.¹

Perhaps fortunately, shortly before the Ministry incurred a loss of some £15,000 owing to the failure of a firm to which material had been delivered. It appeared from the report of the case that material in excess of requirements had actually been delivered to the value of £75,000, and it was rather owing to good fortune than good management that a greater loss was not incurred.² The result was that the Financial Secretary referred the case to the Minister acknowledging that "great weakness in the control of issues of raw material is disclosed," and stated that it did "not appear to be anyone's business to prevent such over-issues." A Council Committee was accordingly called to consider how it was possible to watch the relation between materials supplied and deliveries.

The committee recommended, first, that so far as possible *per contra* issues should cease, monetary advances when unavoidable being in their opinion preferable to advances in kind; secondly, that on the supply departments should be placed the obligation of checking the use of materials; and thirdly, that the Central Stores Department should place its records at the disposal of the supply departments and should have special officers to examine the materials account and call attention to any cases of excess delivery. Check on the use of materials, it was proposed, should be kept by the supply departments obtaining periodical requisitions for material required, accompanied by returns of stock, and by checking these against the output of finished articles. With these records before them, they would be in a position to instruct the department supplying the material to restrict or increase supplies according to the actual position. These recommendations could not be put into force at once, owing to the danger of their running counter to possible decisions on the still wider question of general organisation, which was at the time under consideration. If the supply departments were charged with the duty of watching

¹ C.R. 4386.

² M.C. 663.

deliveries, as was suggested, they would have both to revise their present defective records and set up an adequate machinery for dealing with the returns of stocks, which it was proposed they should obtain under the Defence of the Realm Act. But, if decentralisation of stores and accounts were decided upon, there would be three sub-sections in each department, all engaged upon keeping different records of the same material, and difficulty would inevitably arise. On 27 May, a special meeting was held between the heads of several of the supply departments and representatives of the Accounts Department and of the Department of Requirements and Statistics in order to consider whether it were possible to make arrangements for putting these recommendations into force, and it was decided to appoint a small committee,¹ and to endeavour to instal the new system section by section. Meanwhile the Financial Secretary's Standing Committee had decided to press for rapid decentralisation, so that there appeared to be a fair prospect of the greater and the lesser scheme being worked out in detail at the same time, and being made to dovetail into each other. An account has already been given of the causes which delayed settlement of the question of general decentralisation until October, 1918.² Ultimately accounts and storage were decentralised under General Memorandum No. 134. The decentralised accounts officer thereby became responsible for recording and watching individual accounts with contractors and ensuring the collection of money due from them for material supplied or for advances made. The decentralised stores officers were to keep the materials accounts in the supply departments and watch the stocks of stores. This system it was thought would remove most of the difficulties which had been caused by divided responsibility and by partial and overlapping records.

In spite of this delay in the wider issue, an important decision was taken during the summer of 1918. On 12 August, General Memorandum No. 90 was issued, giving more or less final shape to the various resolutions which had been passed in favour of the curtailment of free issues, and limiting such issues to certain specified classes of contracts. Whenever free issues were made the supply departments were to arrange, in consultation with the Contracts Department, the exact percentage of waste on material that should be allowed to the contractor, and to lay down, for inclusion in the contract terms, the scales which were to operate in regard to the use of materials.

Neither this decision, however, nor the October memorandum had any material effect on the history of the financial administration of the Ministry, for the Armistice was signed before the new system could be put to the test of actual practice. The Ministry had to devote its attention to new problems and gradually to disintegrate the vast structure it had erected.

VI. Liability of the Ministry to pay for Materials supplied under Control.

On 10 April, 1918, the Financial Secretary called the Minister's attention to a point of great financial importance, which had come up

¹ M.C. 663.

² Vol. III, Part I, Chap. V.

during an investigation into the affairs of Messrs. Engines, Ltd., a debtor to the Ministry.

He wrote :—

“ Steel was supplied to this Company on the instructions of the Steel Department. The Company failed to pay, and the Ministry paid, believing that there was a moral, if not a legal obligation. Our control of many raw materials and their manufacture extends to directing importers or producers to deliver to named consignees [material] thereafter to be delivered by the manufacturers to other named purchasers. No choice is left to the trader whom he shall trust ; he is forced to accept a customer selected by the Ministry. I think it quite probable that a legal obligation rests upon the Ministry to see that a trader is paid in such circumstances. The sums involved must amount to hundreds of millions, and even if but a small percentage results in claims, it would be serious.”¹

If, in fact, the Ministry had a legal or a moral obligation which it was prepared to recognise, it was unknowingly helping to capitalise production, not merely by purchasing or loaning raw material, but also by underwriting part of the risks involved in the purchase of materials of which it never obtained actual possession.

The investigation brought to light a multiplicity of practice and almost every degree of responsibility which could lie between the two extremes of a written and specific acknowledgment and a written and specific disclaimer. Control might be exercised by direct purchase with re-sale, loan, or manufacture on commission, by instructions to A to purchase from B, or to B to deliver to A, by suggestions to A that B was in a position to supply by a licence or priority certificate, or to A to purchase from B, or simply to purchase where he could. Licences might be limited to certain specific amounts without time limit, or to a maximum quantity within a defined period. They might be general exemptions from an order restricting purchase. Of thirty-two materials controlled by the Non-Ferrous Metals Department, the Ministry, at this date, purchased and sold seven itself, purchased two for manufacture on commission, purchased one sometimes for re-sale, sometimes for commission manufacture. A further seven it sold through agents acting on behalf of the Ministry. Of four it never acquired possession, but instructed one firm to buy from another, and, of the remaining eleven, it likewise never took possession, but permitted the purchase thereof only by those firms in whose output it was interested.

Not only did each system involve a different *a priori* degree of responsibility ; but the different supply departments had taken quite different views as to the necessity of protecting the Ministry against risk. In most cases they had taken no steps ; the belief being that a moral or legal liability must exist where instructions to purchase or deliver were given, in others they had definitely disclaimed

¹ C.R. 4387.

responsibility, in others again they had, as in the case of Stokes' shell tubes, definitely and of necessity accepted it.

The committee in their report divided the control order into three broad categories :—¹

- (a) " Cases in which the Ministry by orders issued under D.O.R.A. takes control of supply of a given material, and directs that no transaction in regard to it shall take place without a licence granted by the Ministry, either to the supplier or the consumer as the case may be ;
- (b) Cases in which the Ministry, having assumed control of material, orders allocation of available supplies to consumers specified by the Ministry ;
- (c) Cases in which, while no control order has been issued, the Ministry actually controls dealings."

The committee recommended that so far as cases falling under the first category were concerned, both the formal letters explaining the nature of the control order, and the licences for the release of goods should be amended, a definite statement being inserted to the effect that no responsibility rested with the Ministry in case of failure by the consignee to meet his obligation to pay for goods.

Certain difficulties, however, arose in the general application of these principles. The department concerned with the transfer of second-hand machine tools, for instance, urged that delay would be caused if the transferer on whom it was necessary to bring pressure could plead as an excuse for non-compliance with the Ministry's instructions, the necessity of making financial arrangements. In fact, if the Ministry endeavoured to impose this double obligation the whole system of control might break down. The force of these arguments was admitted, and it was accordingly agreed that, in this particular case, the Ministry must recognise the risk and provide for it.

The most important cases fell under the second category, the largest sums being involved in the allocation of steel. It had been customary, where the supplier specially raised the point, for the Ministry to disclaim financial responsibility ; but there was a wide-spread impression in the Department that in point of fact the Ministry, when it ordered a supplier to furnish goods to a specified consumer incurred a moral, and probably also a legal liability, to pay for the goods, if the consumer failed to do so.

There appeared, hitherto, to have been no regular form for disclaiming liability in all cases. If the Ministry by requisition compelled one person to supply another with goods, without giving him the opportunity and right to protect himself either by requiring cash payment or by other security, the committee considered that no disclaimer on the part of the Ministry would disentitle a supplier who suffered consequent loss to apply to the Defence of the Realm Losses Commission for compensation. They suggested, therefore, that in

¹ M.C. 640.

their note directing the supply of steel to any consignee the Ministry should insert the following paragraph :—

“ The Ministry of Munitions hereby gives notice that they do not accept any liability by way of contract, indemnity, guarantee or otherwise to the supplier or recipient of, or any other person, firm or corporation dealing in the goods referred to in this document by reason of any instruction or direction given or action or thing done by the Ministry in regard to such goods, and all parties must accordingly themselves make such arrangements as they may consider necessary for securing due payment and otherwise for their own protection and this Document is issued upon the above understanding.”

This somewhat elaborate statement applied, of course, likewise to cases falling under the third category. When the findings of the committee were circulated to the supply departments, most of the officers concerned, while raising no objection to the general decisions, declared their intention to substitute a brief statement in commercial language more readily comprehensible to the recipient. A number of supply departments, however, failed to take any action, and it was not until a fortnight before the Armistice that it was decided to take the necessary action to enforce the rulings made.

In addition to the foregoing cases, the Council Committee had to consider the financial liability of the Ministry when control was enforced by means of purchase and sale of materials. Such transactions might be effected either direct by the Ministry itself or through specially appointed brokers.

As a general rule, agents and brokers were definitely protected against risks arising from bad debts by the terms of their agreement. The committee, therefore, decided that these agreements should be revised and the brokers in future be made to shoulder these risks.

So far as direct sales were concerned, the committee endorsed the findings of previous bodies to whom this question had been referred and recommended that, when possible, all sales should be for cash. When this was not possible, it was clearly impossible to avoid the risk of a firm's failure and the position was in no way improved by fictitious cash sales, under which the Ministry granted a monetary loan to the contractor to enable him to finance the purchase, subsequently recovering from him by deductions from his bills.

VII. Financial Importance of the Problem.

It will be seen from the foregoing account of the controversy on the relative merits of the different methods of controlling materials which for so long exercised the minds of Ministry officials that, although the theoretical financial advantage of each system was not overlooked, the actual efficient cause for any change of policy was always some concrete failure in the administration of an alternative policy. This being so,

some quantitative measurement of the extent to which the administration broke down and of the extent to which ultimate recovery was made, would appear to be desirable. It will not be necessary for this purpose to take more than illustrative data. Complete figures are indeed not yet available, but those which are readily accessible are striking enough.

Figures have been given in an earlier part of the volume,¹ indicating the inadequacy of the Ministry's records of the material of which it disposed. By the end of June, 1919, over £10,500,000 had been recovered from contractors for material supplied, of which rather less than £2,000,000 was in respect of the year ending March 1918 and the rest for the preceding period. The figures for the later period are the more remarkable as they show the continued failure of the accountancy system after, as has been shown, the whole question of keeping accurate records had begun to receive the serious and continual attention of all the departments concerned. Despite the lack of complete success, however, appreciable progress was made during the last year of the war, as an examination of the monthly figures prepared by the Internal Audit Section show. In this connection, the following figures from a statement prepared by Mr. Guy and Mr. Garnsey, as part of an attempt to draw up a provisional balance sheet for 30 January, 1918, may be of interest:—

Current Assets and Recoverable Advances, 30 January, 1918:—

<i>Advances Recoverable.</i>						<i>Cash.</i>	<i>Materials.</i>
						£	£
D.M.A.2.	Tanks .. .. .	..	..	..	..	2,285,541	?
3.	Aeronautical Supplies .. .. .	..	..	..	..	?	?
4.	Boards of Management and Munition Committees .. .. .	..	..	..	..	3,701,239	9,657,343
7.	Royal Ordnance Factory .. .. .	..	..	..	..	503,501	2,193,905
8.	Morgan Account .. .. .	..	..	..	..	44,142,442	—
10.	Guns, Shells and Components .. .. .	..	..	..	..	39,429,822	13,259,969
11.	Optical Munitions .. .. .	..	..	..	..	90,655	1,750
13.	Railway Executive Committee .. .. .	..	..	..	..	3,279,962	—
14.	Transit Notes .. .. .	..	..	..	..	25,001	—
15.	Continental Agents .. .. .	..	..	..	..	847,715	1,089,904
16.	Raw Materials .. .. .	..	..	..	..	2,043,632	2,022,394
17.	Scrap and Defective Materials .. .. .	..	..	..	..	231,504	—
20.	Factory Control Accounts .. .. .	..	..	..	..	168,736	7,094,298
21.	Railway Materials .. .. .	..	..	..	..	248,245	?
23.	Other Government Department Accounts .. .. .	..	..	..	..	150,000	—
24.	Storehouses and Bonds .. .. .	..	..	..	..	23,000	—
26.	High Explosives .. .. .	..	..	..	..	1,041,290	392,880
27.	Propellants .. .. .	..	..	..	..	3,728,935	219,594
28.	National Explosives Factories .. .. .	..	..	..	..	185,000	6,293
29.	Trench Warfare .. .. .	..	..	..	..	1,885,363	809,318
30.	Mechanical Transport .. .. .	..	..	..	..	1,206,576	—
31.	Inspection and Area Officers .. .. .	..	..	..	..	1,050,304	—
TOTAL						106,268,463	36,747,648

¹ Vol. III, Part I, p. 78 *seq.*

Current Assets and Recoverable Advances, 30 January, 1918.

<i>Capital Expenditure Recoverable.</i>						<i>Cash.</i>	<i>Materials.</i>
						£	£
Other Departments							
TOTALS						15,281,529	
<i>Debtors in Cash Sales Accounts.</i>						<i>Cash.</i>	<i>Materials.</i>
						£	£
D.M.A.3.	Aeronautical Supplies..	..	..	..	..	?	?
6.	Capital Loans ..	..	..	..	..	43,248	—
12.	Accounts with Allied Governments ..	..	..	..	..	—	10,701,093
19.	Receivable Orders ..	..	..	..	..	—	11,366,032
23.	Other Government Department Account ..	..	..	..	..	—	507,046
26.	High Explosives ..	..	..	..	..	—	46,424
27.	Propellants ..	..	..	..	..	—	1,516,591
29.	Trench Warfare ..	..	..	..	..	—	7,446
TOTALS						43,248	24,144,632
GRAND TOTALS						121,593,240	60,892,280

The proportion of the cash advances to material advances outstanding at any given date does not, of course, represent in any way the proportion of weekly turnover of these advances, since the latter matured more rapidly than the former. Further, the proportions shown are vitiated to a certain extent by the insufficiency of the data. Where entries should have occurred, and are missing through lack of information, the fact is indicated by the insertion of a mark of interrogation. It will be observed that out of fourteen departments from which information with reference to advances of materials should have been forthcoming, three, or 20 per cent., could make no approximate estimates. The percentage of accounting departments unable to estimate the value of stores in the hands of contractors was, of course, very much higher and it was not until long after the Armistice that a complete inventory was made.

Up to June, 1917, free issues for the manufacture of tanks were not recorded by the Accounts Department even in quantity, and no check was kept on the contractors, although large deliveries had been made to them. The Internal Audit Section had only taken over responsibility for the accounts of the Department of Aeronautical Supplies in the middle of October, 1917, and had therefore had insufficient time to create order out of the chaos which they found. They were faced with an accumulation of some 35,000 unpaid bills, with a weekly inflow of bills amounting to about 4,000, and a weekly outflow of about 2,500, with a system under which advances were made to contractors without being linked up with any specific contracts, with constant demands for payment by contractors for deliveries for which no accounts could be traced, and with a primitive system of accounting, an inadequate staff and insufficient accommodation. It was not until April that it was possible to make an estimate of the value of the materials which had been advanced to aircraft contractors.

The importance of the last category in the balance sheet, from which extracts have been given, lies mainly in the high figure for receivable orders to the non-payment of which reference has already been made. This matter received a thorough investigation during

the second quarter of 1918, and in July the Internal Audit Section reported that the unpaid orders on 31 March, 1918, amounted to 18,498, affecting 3,500 contractors. A number of these orders appeared never to have been entered into the ledgers of any of the accounting sections.

Confusion also existed with reference to material issued to local Committees and Boards of Management, and very considerable labour was devoted to reconciling the Ministry's accounts with those of these bodies. The following figures, giving the results of part of this work up to the end of August, 1918, indicate the extent to which discrepancies had been allowed to occur :—

	£
(a) Material delivered and not invoiced	682,596
(b) Material issued but not on the Ministry's records	1,134,449
(c) Cash payments omitted from Ministry's records	171,986
(d) Cash received from Committees omitted from Ministry's records	280,958

The causes of this unreliability and insufficiency of the Ministry's records of its capital transactions lay, not so much in the inherent defects of any of the three systems under which material advances were made, but rather in the concentration of attention on immediate results, on supply and not on method, in the continual strain of meeting new and changed demands, in the hurry and uncertainty of war and in the difficulty of obtaining, not staff, but efficient staff.

The Internal Audit Section had to apply very different treatment to different classes of issues. Thus in some cases, such as the Aeronautical Supplies Department, records were not available, and it was found quicker or more economical to go straight to contractors and ask them what materials they had received, relying on their honesty or the chance of records becoming available. In other cases the Internal Audit Section found basic records which were of the utmost value in their work : thus in regard to stores purchased in the United States of America, which up to 31 March, 1917, amounted in value to over £47,000,000, the value of stores charged to contractors at one time amounted to but a small proportion of the total amount chargeable. In spite, however, of the difficulties which had attended the operations—the impossibility of forecasting ports of arrival of ships, the necessity for delivery straight from the ship to manufacturers, the loss of advices and the sinking of vessels—good records of distribution had been maintained by the Finance Department, with a very great measure of help from Messrs. Morgan, Grenfell & Co., (the London connections of Messrs. J. P. Morgan & Co., "Commercial Agents"). With the aid of these records, charges were raised, where necessary, by the Internal Audit Section, and the value of the quantity ultimately untraced proved to be but a fraction of one per cent. of the whole.

The decision taken in February, 1918, to confine *per contra* issues of materials to cases in which the contractor was really unable to pay for the material before receiving payment for the work done, or in

which the value of the materials was out of proportion to the cost of the operations to be performed, was quickly put into force, as is indicated by the following figures.

Year 1918.		Balance of Contractors' Accounts. (Advances or debits during each month.)		
Month.		Materials for cash.	Materials per contra	Percentage of Materials per contra to Materials for cash.
(a)		£ (b)	£ (c)	(d)
February	.. ..	9,658,000	11,905,000	123 per cent.
March	.. ..	9,593,000	10,899,000	113 "
April	.. ..	3,107,000	3,332,000	107 "
May	.. ..	13,200,000	6,326,000	48 "
June	.. ..	9,490,000	4,490,000	40 "
July	.. ..	10,875,000	4,156,000	38 "
August	.. ..	8,728,000	5,600,000	64 "
September	.. ..	10,392,000	5,693,000	54 "

Thus, while *per contra* issues in February appreciably exceeded the cash issues, by September they were only a little more than a half thereof. Similarly, the rates of the actual balances outstanding at the end of the month changed from approximately £22,000,000 for *per contra* advances, against £15,000,000 for cash in March, to £19,000,000 for the former, and £20,000,000 for the latter in September. It may be observed in this connection that the total of these two, which averaged about £40,000,000 throughout the year, constituted about one-third of the total loan outstanding. It will be observed also that the total sum outstanding increased rather than diminished, showing that "cash" tended always to become *per contra* in fact.

VIII. The Priced Vocabulary of Munitions Stores.

The work of fixing the price of stores to be issued to contractors was the function of the Vocabulary Section of the Contracts Department, set up for this purpose under Mr. J. Kelly, who was transferred from the War Office to superintend it so that there might be no break in the continuity of the work. Price fixation involved two distinct problems once the general principles had been settled. The question of principle was whether the stores were to be issued at, above, or below cost. To issue them below cost involved a danger of misappropriation; to issue them above cost involved an increase in the cost of the production of the goods for whose production they were used and the danger of the contractor obtaining a higher oncost and profit; to issue them exactly at cost involved a very careful and laborious calculation, more especially when the sources of supply and prices from different sources varied.

The policy actually adopted by the Ministry was to issue the stores at actual cost plus certain percentages for individual expenses and risk. In February, 1917, a special committee, consisting of Mr. Judd, Mr. Webster Jenkinson, Mr. A. E. Watson and Mr. Sims, was set up by the Ministry Finance Board to consider the proper amount of those percentages and the procedure to be adopted. The experience as to

incidental costs obtained from the transactions of the previous financial year was used as a guide, and the following rates were agreed :—

1. Administration and purchasing expenses .. .. .	.. 5 per cent.
2. Inspection, storing and handling	2.5 " "
3. Freight and railway charges	5.0 " "
4. Losses by transit, fire, etc.	1.0 " "
5. Depreciation, damage and obsolescence of type	1.0 " "

Total overhead costs .. 10 per cent.

These rates were agreed by the Finance Board and at the same time procedure was laid down with reference to the respective functions of the Finance and Contracts Departments in determining prices. Vocabulary prices and the price of issues to national factories were to be fixed by M.F.6 (Finance Department) and an officer of the Contracts Finance Branch. The contracts officer dealing with this question was to be detached to assist in revising the list of standard prices. Any proposed revision was to be notified to C.F.1, who should agree with the Director of Factory Construction, the Director of Factory Audit and Mr. Watson.¹ A difficulty had arisen at the end of 1916 in connection with sub-contractors to local Boards of Managements. In some cases the contract prices with these Boards had differed from the standard prices, but the Boards themselves had adhered, in issuing sub-contracts, to the standard prices. It was then agreed, and the decision was now ratified by the Finance Board, that all " materials supplied must not be invoiced to the National Shell Factories at standard prices, but by the Committee for Sub-Contractors at the prices arranged in the contracts."²

Whenever the price of the issue was mentioned in the contract made with the firm, the level of that price automatically came for decision before the Contracts Department. When that was not the case, however, it sometimes arose that materials were issued at other than the standard prices without their knowledge. The Finance Board, therefore, laid it down that in such circumstances the price was to be fixed by the supply branch in consultation with the Contracts Department, and this recommendation was embodied in General Procedure Minute No. 88, issued on 28 March, 1917. In spite of these instructions, however, Mr. Guy reported in the summer of this year that the materials sections were continuing to issue stores without consulting the Contracts Department. The Director of Non-Ferrous Materials explained that his section had not in all cases been able to obtain the necessary information from the Contracts Department, and that, specifically, in the case of brass rod for munition components they had, in view of this lack of information, to fix prices themselves. They had accordingly selected prices " as near as possible to the price at which the rod was bought."³ He suggested, at the same time, that a conference should be held between the various departments interested with a view to

¹ M.F./Gen./1996.

² M.F./Gen./210.

³ P.M./Gen./874.

establishing a procedure under which the supply sections might receive an automatic notification of prices. A meeting was accordingly held on 19 July, 1917, at which it was agreed that :—

- “(a) The preliminary contract letters should in all cases specify the rates at which materials were to be issued to contractors. . . .
- (b) That sale notes should be made out by A.M. 2 (Raw Materials Branch) in all cases of sales of materials and that sales should be made at the prices shown in contracts.
- (c) That as regards sales of materials in cases where provision for issue was not made in contracts, issue should be made on scales agreed with the Contracts Branch and on principles agreed with the Finance Branch.”¹

It had been by no means easy for the Contracts Department to carry out fully their duties as laid down in General Procedure Minute No. 88, owing to the serious understaffing of the Vocabulary Section and to the difficulty of obtaining competent assistants. The work was of a highly technical character, involving as it did a complete knowledge of the components of which any finished article was constructed and the ascertainment of the average price of each one of such components. In the case of shell, for instance, it was necessary to obtain the costing of some 100 distinct items before arriving at the cost of the complete round.

The special committee set up in February, 1917, had considered the question of fixing special additional overhead percentages in the case of iron and steel products on account of the rebates allowed, and decided against so doing on the ground that the Ministry would thereby raise the price of these supplies above those ruling in the open market. In September, 1918, however, it was proposed to raise the total overhead charge and finally on 12 October it was decided with Treasury approval to fix the charge at 17 per cent., and later, on 4 December, at 25 per cent. on all stores containing iron and steel, owing to the subsidies granted to manufacturers.

¹ P.M./Gen./874.

CHAPTER IV.

CONTROL OF CAPITAL EXPENDITURE.

I. Introductory.

The control of capital expenditure in so far as that expenditure took the form of writings off from the munitions levy or loans of material to be manufactured on commission, has already been dealt with in Chapters II and III, and the machinery of control over all financial operations has been described in Part I of this volume. We are concerned, therefore, in this final chapter, primarily with the character of the control of capital assistance rendered directly in the form of repayable or non-repayable money grants, and with the causes which made that control assume the character it did. The consideration of this particular aspect of the wider problem of financial control as a whole, will, however, necessitate to some extent a consideration of that wider problem, and to that extent this chapter is concerned not merely with the facts related in Part III of this volume, but likewise with those recorded in Parts I and II. While, therefore, our focus will be on capital expenditure, our vision will necessarily embrace (with less clear perception) the larger part of the whole organisation of control.

It should be remembered in this connection that, although capital expenditure constituted an important fraction of the total cost of the Ministry's purchases of munitions, it was only a fraction. The total working capital on 1 April, 1918, was just over £538,000,000. The outstanding balance of capital expenditure on buildings, plant, etc., was almost £80,000,000 and materials on free issues slightly exceeded £23,000,000 in value. These figures, however, do not show the annual rate of capital expenditure, but merely the position at one date.

II. Control of Capital Expenditure under Mr. Lever, 1915-16.

In 1915-16, the Ministry was already spending very large sums in the form of capital outlay. Assisted contracts, involving grants, loans and advances of various kinds for the extension of contractors' works were placed by the Contracts Department. Under the Munitions of War Act, 1915, the practice arose of financing such extensions by means of writings-off from the munitions levy, and bargains of this nature were arranged by the Controlled Establishments Division. Contracts for the construction of national factories were placed by the Director of Factory Construction independently of the Director of Contracts.

The position of the Treasury with regard to capital expenditure by the Ministry has been explained in the earlier part of this volume.¹ Under the minute of 29 January, 1915, the Treasury had delegated to the supply departments concerned its normal powers of sanctioning

¹ See Vol. III, Part I, Chap. I.

contracts providing for assistance to contractors in respect of additional capital outlay. The Department disclaimed all responsibility for the details of assisted contracts and of the expenditure incurred in the erection of national factories. The practically unlimited powers of the Ministry in this direction were not restricted till October, 1917, when, in consequence of the recommendations of the Select Committee on National Expenditure, the Treasury requested that "any new expenditure on factories and other works of construction or on extensions of existing factories and buildings costing £50,000 and upward may be submitted for their approval before further funds are committed thereto." The Minister accepted this rule, but only with the proviso that it should be open to him to sanction such expenditure in excess of £50,000 in special cases where delay might prejudice the public interest. In December, 1917, the Treasury limited free grants made, without reference to them, for capital requirements of munitions firms to "£10,000 or to 40 per cent. of a firm's capital requirements, so, however, that the total sum advanced by way of free grant does not exceed £50,000 to any one firm."

In the earlier period of the Ministry's existence, the only central financial control exercised over these various forms of expenditure was vested in Mr. Lever. Under his original instructions of August, 1915, he was charged with the audit of expenditure by assisted contractors, to ensure that the money granted or advanced to them was properly spent.¹ He was also charged with:—

"the examination by engineers, accountants, and other qualified persons of any proposed capital expenditure for new shell, gun, or other munition factories, and the institution of technical checks, both before commitments are made and during the carrying out of work, in order to secure that all payments to be made by the Finance Department may be fully justified."

He was further charged with:—

"the examination into all current and future contracts, with the view to ascertaining whether the contractual obligations are being properly carried out in respect of matters of capital expenditure or other obligations of a financial nature under the contract."

On his appointment as assistant Financial Secretary,² on 29 October, 1915, Mr. Lever became responsible for the financial terms of all contracts involving capital expenditure or loans, all net cost contracts, and all important contracts or undertakings involving an expenditure of £40,000 and upwards. All such contracts and undertakings were to be referred to him, or to his officers, before any definite understanding was arrived at with the contractors. His responsibility extended to the outlying departments of Explosives Supply and Trench Warfare Supply.

Under Mr. Lever's directions, Mr. John Mann gave special attention to the finance of factory extensions. In 1916, when the steel works extensions were under consideration, Mr. Maslin, of the Contracts

¹ See above p. 28.

² HIST. REC./R/263. 4/10.

Department, was asked to assist him. In December, 1916, Mr. Maslin was further deputed to act as liaison officer between the Contracts Department and the Controlled Establishments Division. All negotiations involving questions of writing-off, allowances for amortisation and depreciation upon plant and buildings were to be submitted to him.¹

Almost immediately after his appointment, Mr. Lever drew up for Dr. Addison a letter of instructions to contractors with reference to their accountancy of extensions erected with the capital payments made by the Ministry, in which the principles of subsequent control are set out.

"It is necessary," he wrote, "that your accounting systems should show clearly the distinguishing line between construction and production work in order that, when wages or material have been expended on different items of plant the total cost of each particular item may be definitely ascertained.

"It is also necessary that your accounts and vouchers supporting capital expenditure should be arranged in such a manner that an independent verification may be made. In order to accomplish this, stores records should be kept which will show the receipt of any stores for construction purposes and the actual disposal of the same. The wages paid on construction work should be recorded in such a manner as will indicate clearly the exact value of the construction work carried out and should be supported by time-keepers' records and wages books, which should be certified by some responsible officer."²

At the same time he drew up suggestions for standardising the methods to be adopted by the Ministry in making advances of cash, machinery and materials to contractors. As has been shown in Chapters I and II of this volume, there was the greatest diversity in the methods adopted; but these suggestions are, for all that, important as showing the principles to which the Finance Department advocated conformity at this date.

These suggestions were prefaced by a statement of the right, reiterated in General Office Notice No. 11, dated 29 April, 1916,³ of the Finance Department, to make independent verification through its engineers and accountants of the necessity for advances proposed. The broad principles laid down for loans, as distinguished from grants, were that they should, when possible, be repaid during the term of the contract by means of deductions from the firm's bills, should be secured by mortgage or debentures involving fixed and floating charges on the assets of the company, and should be made conditional on the right to verify the detailed accounts of their disposal.

After discussing the question of the supply of machinery or plant, Mr. Lever concluded that the best system of making advances was one under which the machinery and plant bought by the Government in the first instance was ultimately acquired by the contractor by payments made by deductions from his invoices for goods delivered.

¹ Contracts Branch Memorandum 78. (13/12/16). P.M./Gen./572.

² HIST. REC./R/263. 4/10.

³ See Vol. III, Part I, p. 27.

He objected to the grant of an option to the contractor to purchase at the end of the war, on the ground that it entailed too much risk to the Government and too little to the contractor; he objected, likewise, to gifts of plant if they could be avoided, and considered that if machinery were hired out the rent should, in any case, not be less than 10 per cent. of the capital value per annum.

Mr. Lever's administration covers that period of the history of the Ministry of Munitions during which the flood of War Office demands was continuously threatening completely to overwhelm the new and untried organisation set up to deal with them. New departments sprang up in a night, and a continual stream of new officials unfamiliar with departmental procedure were receiving emphatic instructions and undefined powers.

Dr. Addison, the Parliamentary Secretary, explained to the Public Accounts Committee that he had appointed Mr. Lever, a chartered accountant, as Assistant Financial Secretary, and made him responsible both for evolving the system of cost accounting and for sanctioning all important contracts, including those involving capital expenditure. In an office which for many years had trod a turnpike of routine, it might have been possible for an officer with these responsibilities to have specialised temporarily in the first of these two tasks, merely keeping a controlling hand on his subordinates dealing with the second. But, from the time of his appointment to the time of his retirement, it was a matter rather of conjecture than of certainty who were incurring, and who thought they were entitled to incur, capital expenditure. To exercise real control over the supply officers, who, naturally often intensely unwilling to brook control, were straining to achieve results at any cost, was alone a formidable undertaking. To perform the double duty imposed on him by Dr. Addison was impossible. Mr. Lever elected to concentrate his attention on organising a system of cost accounting. The history of financial control over capital expenditure in the Ministry of Munitions after 1916 is the history of an attempt, never crowned with complete success, to solve the difficulties and determine the uncertainties to which 1915 and 1916 gave birth. The character of some of these difficulties is told in the following extract from the verbatim minutes of the Advisory Committee¹

Sir F. Black : " Take Chilwell ; we did not know at that date which method of filling was going to come out top ; I do not know that there was anybody in the War Office or elsewhere that could tell us. It was not merely a question of buildings ; it was a question of plant. What Lord Chetwynd did was this : he went over to France with a little Commission and studied the French system of filling. He came back full of the idea that that was going to be the system that we should ultimately adopt. He then went round the country and got hold of various people ; he studied power mills, paint mills and sugar mills, and he took ideas from all three. He went to work ; he could not get any drawings sent up here. (A) and (B) used to come to me in despair and say ' Chetwynd will not tell us anything.' I used to say

¹ Verbatim Report of Advisory Committee, 20 November, 1916.

to Lord Chetwynd, 'Cannot you give us an idea of what you are doing?' and he used to say, 'Come down and see me; I will show you anything on the spot, but I have no time to send particulars to headquarters!' That was how the place was built. It was either going to be a big success or a big failure. Fortunately, it turned out a big success. . . . I think that place, if he were to die to-morrow, would be a perfect monument to his genius."¹

The Chairman : "How do you give your financial approval to his schemes?"

Mr. Lever : "Unfortunately, we have not any financial check on him."

This particular case was, no doubt, exceptional, but it was different only in degree, not in type, from a multitude of others. It was, in fact, completely typical of the character of the success and the character of the failure of the Ministry. The failure became more apparent later, and constituted one of the difficulties which the year 1917 inherited from its predecessor.

"There are two cases at the present moment," Mr. Lever stated, in November, 1916, "that I might tell you about. Lord Chetwynd came up and we lunched with the Minister. He said to the Minister, 'I am going to start an athletic club; I am going to have hockey for the girls, and both sorts of football and a big dancing hall.' The Minister was very sympathetic, and patted him on the back, and said he hoped he would be able to arrange it. Goodness knows how much the dancing hall and all this sort of thing will cost." It was exactly on account of such difficulties and the constant increase in the number of departments, which were with greater or less irregularity making capital commitments and were responsible for constructional contracts, that the Advisory Committee, from the reports of whose sessions the foregoing statements are extracted, was requested to review the whole position at the end of 1916. Even in less extreme cases than that quoted and where initial authority was obtained from the Finance Department for capital expenditure, the position was rendered difficult by the frequency with which the original estimates were exceeded without further sanction. Moreover, with its then inadequate machinery, it was impossible for the Finance Department to take any adequate steps to restrict expenditure in excess of estimates, once the enterprise involving that expenditure had been embarked upon. The recommendations of the Advisory Committee and the action taken as a result of these recommendations are considered in the following section.

III. Institution of the Munitions Works Board.

During the latter half of 1916, a certain amount of friction arose between the Finance Department under Mr. Lever, and the Controlled Establishments Division owing to the more open handed policy of the latter in assisting contractors in making extensions to their works. At the same time, the demand for national factories was rapidly

¹ For the history of this factory see Vol. VIII, Part II.

increasing, and the constructional work throughout the country financed by the Ministry had reached dimensions unforeseen a year earlier. Various departments within the Ministry were responsible both for the initiation and the execution of the schemes put forward. The Factory Construction Department carried out the work on National Projectile Factories and extensions for steel production ; the Explosives Supply Department was responsible for the construction of explosives factories ; Woolwich and Enfield had their own building departments for maintenance and extensions ; the Housing Department carried out the housing schemes connected with national factories, and the Trench Warfare Supply Department, which was largely an independent unit, made its own arrangements for the new factories it required. At the same time, use was made of the Office of Works for the construction of filling factories and box factories.

It was, under these conditions, extraordinarily difficult for the Finance Department to exercise control, either over the details of proposals submitted and pressed for by half a dozen sections with different interests and varying judgment, or over general policy. The question was accordingly referred to the Advisory Committee who were asked to " consider and report whether the different organisations now existing in the Ministry concerned with constructional work can, with advantage, be co-ordinated (especially from a financial point of view) and whether any changes are desirable in connection with the superintendence of the constructional work of various kinds for which the Ministry is responsible."

The Advisory Committee recommended that " a Board of Works " should be set up consisting of a chairman (preferably a civil engineer), a factory architect, a builder, representatives of the Finance and Labour Departments of the Ministry and of the Lands Branch. This Board, they suggested, should " co-ordinate the activities of all constructional departments of the Ministry, approve their schemes, limit expenditure, supervise employment of labour and be responsible for the maintenance and repair of factories and buildings belonging to the Ministry.¹ They further suggested that a new department should be set up under the chairman of the " Board of Works," to be called the " Assisted Works Department " to co-ordinate, check costs and generally supervise all transactions in regard to extensions and also construction work for munitions contractors.

These proposals made by the Advisory Committee were put into effect with some amplification on 23 January, 1917. The Minister announced his intention at the fortnightly meeting of the heads of departments on 15 January, stating that he proposed to form a " Works Construction Board, by which all our various schemes for extensions of new works of construction and for allowing writings-off to firms will be considered and the Ministry advised upon them."² The executive heads of departments were, as before, to carry out the work ; but prior sanction would have to be obtained from the Board, and it

¹ A.C. 10.

² Minutes of Fortnightly Meetings with Heads of Departments, 15/1/17 (Hist. Rec./R/263/5).

was hoped and intended by this means to exercise a closer control over the Controlled Establishments Division. At the same time, the Board was to consider the priority which should be granted to the various schemes submitted.

The precise functions of the Board which was finally constituted under the title of the "Munitions Works Board" are set out in General Procedure Minute No. 69.¹ The Board was definitely instructed to "give special attention to finance, choice of site, design, materials, labour supply and priority between the various proposals made."

All departments of the Ministry were instructed to note:—

(a) That particulars of all constructional work whether:

- (1) proposed to be undertaken by departments of the Ministry direct, or
- (2) to be paid for in whole or in part out of monies advanced by, or on behalf of the Ministry; or
- (3) Allowed to be paid for in whole or in part out of the excess profits of controlled establishments, should be submitted by the departments to the Board for approval.

(b) That at stated periods thereafter full information of net costs, costs compared to estimate, labour conditions, progress of work, etc., should be forwarded to the Board by the various departments, firms and establishments carrying out constructional work of the character defined in (a).

Under constructional work was included the provision of machinery, plant and tools.

The various departments of the Ministry concerned with construction were instructed to appoint representatives to attend meetings of the Board when requested.

Mr. F. Palmer, C.I.E., representing the Finance Department, was nominated Chairman. The other members were; Mr. James Carmichael (Vice-Chairman); Mr. Seager Berry; Mr. G. W. Humphreys; Mr. Maslin; Mr. W. J. Larke (representing the Labour Supply Department); Sir Howard Frank (Director-General of the Lands Department, War Office and Ministry of Munitions, also representing the Board of Agriculture); Mr. Frank Baines, M.V.O. (Principal Architect of H.M. Office of Works). The last three members were only to attend when their departments were concerned, at the chairman's request.

It was thus definitely intended that the Munitions Works Board should both consider how far subventions it was proposed to make to firms were justified, regard being paid at once to the value of the works to the Ministry during, and to the firm after the war, and also to endeavour to secure that the money spent actually went to the purposes for which it was intended. This latter function was, however, to some extent divided between the Board and the various executive branches, and in the majority of cases the Board only devoted its activities to the details of the use to which advances sanctioned by it were devoted, if and when an appeal was made for an increase in the amount of these advances.

¹ See Appendix III.

Under the Munitions Works Board, a special body called the Assisted Works Branch was constituted for the purpose of co-ordination, checking costs, and supervising all schemes in respect of which the Ministry had at any time made, or should in the future make, any advances or allowances for extensions to contractors or controlled owners. For these purposes the Director of Area Organisation put at the disposal of the Board the services of the engineers employed in the areas. A number of quantity surveyors were appointed by the Board to work with them. In August, 1918, the Assisted Works Branch was merged in the general organisation of the Munitions Works Board.

In order to expedite business, the Munitions Works Board, immediately after its formation, decided that references to them should be decided in so far as possible by the individual members of the Board who were able to devote their whole time to the work, although all decisions made had to be referred for final ratification to the whole Board sitting in committee. It was further decided that all proposals for new works or extensions should be referred to them for agreement in principle at the earliest possible stage. Such proposals were then referred back to them if general sanction had been given, when the question of finance and materials required for construction could be considered in greater detail.

One of the first problems which occupied the attention of the Board was their exact relationship to the Controlled Establishments Department and its Advisory Committee. After considerable discussion it was agreed that this question should be referred to the Minister. The decision of the Minister was given in a General Procedure Minute, issued on 21 March, 1917.

"In development of organisation of the Munitions Works Board the Minister has decided that the 'Survey and Valuation' Branch of the Controlled Establishments Division shall in future work under the direction of the Board, and he has requested the Committee which has advised the Branch hitherto to act in the same capacity towards the Board. The Assistant General Secretary in charge of the Controlled Establishments Division will accordingly refer to the Board in order to ascertain the value of any property with which he has to deal for the purpose of the limitation of profits."¹

The position resulting from this minute was that the Advisory Committee became in theory, at any rate, technical advisers not merely to the Controlled Establishments Division, but also to the Munitions Works Board, itself a technical body, so far as their services were required. Cases were in practice referred first by the Controlled Establishments Division to the Advisory Committee and then by the Controller of the Controlled Establishments Division, after the recommendations of the committee had been considered, to the Munitions Works Board for sanction. This system was not successful in removing the friction which had previously existed between the Controlled

¹ General Procedure Minute No. 85 (21/3/17).

Establishments Division and the financial authorities in the Ministry. In July, 1917, Mr. F. Palmer, Chairman of the Munitions Works Board, minuted the Financial Secretary complaining that the Advisory Committee of the Controlled Establishments Division had communicated their own recommendations to firms so as to forestall the Board's negotiations. In one case the committee recommended a 16½ per cent. higher writing-down allowance on buildings and a 13½ per cent. higher allowance on machinery than the Board's most liberal estimate, and in another, after Mr. Palmer had already entered into negotiations with a firm, sent down two of their members without his knowledge, and, out of a total capital outlay of £83,000 involved, recommended an allowance of £12,000 in excess of what the Board considered reasonable, informing the firm of their views. It was impossible for financial control in the Ministry to be successfully administered so long as a department which was, or should have been, primarily concerned with finance, preferred its own opinion to that control. The Financial Secretary instructed the committee to confine its advice in future to Mr. Palmer.¹

In order both to safeguard the interests of the Ministry and to enable the single sanctioning body set up to carry on the work, it was decided, in the spring of 1917, to have complete lists drawn up of all lands and buildings in the occupation of the Ministry. The Lands Branch—which then became the Lands Department—was accordingly instructed, in February, to prepare a complete record of all lands in the occupation of the Ministry and particulars of the premises and tenancies. They were also instructed when it was "proposed to take up any fresh lands or new tenancies or premises" to send particulars to the Munitions Works Board for their advice.² Two months later the Minister instructed the Munitions Works Board to prepare a complete list of all buildings in the possession of the Ministry, incorporating therein the lists already begun by the Explosives Supply Department, the Trench Warfare Supply Department, and the Chairman of the Munitions Works Board. A sub-committee of the Board under the chairmanship of Sir Howard Frank was accordingly set up for this purpose.

When, in the autumn of 1917, the Treasury requested that all new expenditure on construction work exceeding £50,000, whether on national factories or in the way of contributions to capital outlay by contractors, should be referred to them, the power of the Munitions Works Board was necessarily curtailed. It will be remembered that shortly after the minute of 29 October, containing this request, the Treasury placed a similar restriction on free grants, limiting them to £10,000, or 40 per cent. of the firms' capital requirements so long as that percentage did not exceed a total figure of £50,000.³ The result was that all cases involving sums in excess of these limits had to be referred to the Finance Department and by the Finance Department to the Treasury officials. On 16 December Mr. Dannreuther minuted the Controller of Munitions Contracts, and laid down the new procedure

¹ M./Gen./014.

² Vol. III, Part I, pp. 6-7.

³ General Procedure Minute No. 70 (8/2/17).

which this change necessitated. It was arranged that Mr. Maslin, of the Contracts Department, should in future represent both the Controller of Contracts and the Controller of Finance on the Munitions Works Board. His powers and the powers of the Board were, however, limited in the case of national factories and all work of which the Ministry was to become the owner, and, likewise, in the case of free grants of the sums mentioned in the new Treasury instructions. In the case of excesses on approved estimates, reference was to be made to the Controller of Munitions Finance, if the excess was more than £50,000 or more than 10 per cent. of the original estimate, and all applications for loans were to be so referred.¹

Reference to the Treasury by the Controller of Munitions Finance meant in effect reference to the Inter-departmental Emergency Committee, of which Sir Robert Chalmers was chairman and Mr. Dannreuther a member. All cases involving sums in excess of the new Treasury limits were, therefore, for the future referred to the Munitions Works Board for approval, and by them to the Finance Department. If the Finance Department in its turn approved the proposal, it would then be discussed in the Inter-departmental Committee. Important cases involving very large sums or new principles might be referred by the Controller of Finance to the Financial Secretary of the Ministry before discussion in committee, and by the Treasury officials on the committee to the Treasury after such discussion and before a final sanction was given. As a general rule, however, the Inter-departmental Committee considered itself competent to make a decision without higher authority.

The effect of this new system was to separate for the more important cases technical considerations from financial. The weakening of the financial control during the war was due to the fact that at no point were the authorities responsible for finance in a position to refuse financial assistance, whatever the consequence of such refusal, or to pretend that they could measure its consequences. Capital expenditure was always justified in theory at any rate for technical reasons. This being so, the new system put into force at the end of 1917 was advantageous, if only because, by the greater specialisation of functions which resulted, finance acquired the appearance of greater power. By this appearance of power the Inter-departmental Committee was successful in effecting considerable, if minor, economies.

IV. Register of Ministry Assets.

In the course of his examination of the Ministry accounts for 1915-16, the Comptroller and Auditor-General pointed out that the system of recording claims upon contractors was not satisfactory. The claims were kept in two or three branches, and the amounts did not appear to agree.²

¹ HIST. REC. /R/400/21.

² *Report from Public Accounts Committee, with Minutes of Evidence*, 31 July 1917, Qn. 2632.

Mr. Guy and Mr. Garnsey reported in April, 1917, that cases had come to their notice of conditional advances to contractors. In some instances the contractors were to acquire land, or erect specified buildings and plant or both, and the land, buildings and plant were to remain Ministry property. There were also loans at interest, repayable under specified conditions. No attempt seemed to have been made to ascertain whether the conditions had changed, and the whole or part of these advances should accordingly be repaid. They stated that there was no permanent record of these advances or of the land, buildings, plant and other property of the Ministry, and recommended that registers of Ministry assets should be compiled at once.

In fact, as the Finance Board pointed out, there were records of land, buildings and plant already in existence. They were, however, incomplete and unco-ordinated, and Sir George Holmes of the Contracts Department, the Explosive Supply Department, the Trench Supply Warfare Department and Mr. Palmer, the Chairman of the Munitions Works Board, had already begun to prepare new lists. The Army Council had at this date just appointed a War Office Committee with the object of preparing a register of all War Department lands and buildings and of making recommendations concerning their disposal after the war. Sir Howard Frank accordingly attended a meeting of the Munitions Works Board on 22 March, and suggested that the records of similar property belonging to the Ministry should be communicated to the War Office Committee, so that that committee might be placed in full possession of the facts. The Demobilisation and Reconstruction Committee had likewise a little earlier pressed for information. It was accordingly decided to appoint a joint committee to co-ordinate and complete the existing records and maintain such records in the future. This committee was made responsible to the Munitions Works Board so far as buildings, and to Sir Howard Frank so far as lands were concerned. On 26 April a General Memorandum (No. 3) was issued incorporating these decisions.

By the middle of 1917 the position was that loans and advances at interest and advances without interest repayable in cash were recorded in the loan ledgers instituted in October, 1916. The Finance Branch, D.F.1., kept records of free issues of plant and machinery belonging to the Ministry, and of issues on hire, but these records were incomplete. Transfers of plant and machinery were frequent. D.F.1. recorded them when they were reported, but often they were not reported.

On 10 September, 1917, instructions were therefore given by General Memorandum No. 24 that inventories of all plant, machinery, furniture, &c., which were Ministry property, or might become so, or over which the Ministry had some lien, were to be obtained at once. The inventories were to be priced at cost and agreed in total with advances made by the Ministry. Every interested department (usually supply) was to take steps to get the inventories prepared.

On 4 December General Memorandum No. 3 was superseded by General Memorandum No. 47, which removed from the Munitions Works Board the responsibilities for the list of factories and other buildings. Henceforth the Special Committee for Land and Buildings was to be treated as a sub-committee of the Council Committee on Demobilisation and Reconstruction. The terms of reference were extended as follows :—

“ to prepare and maintain a list together with schedules and particulars, also valuations, of all lands, buildings, factories, machinery and other property in the occupation of the Ministry of Munitions, or in which the Ministry is interested, and to make recommendations for the disposal of same when required. To report on the capabilities of the machinery for post-war work.”

A report, made in May, 1918¹, shows the progress that had been made in the previous twelve months. There were three classes of inventories.

(1) Contractors assisted with plant, or advances for plant which was to remain Ministry property, numbered 122 firms, several of whom held more than one contract. Of these, 54 had furnished inventories, many of which were incomplete because many machines supplied by the Ministry had not been invoiced to the contractors. Inventories in preparation numbered 41. The delays were due to changing over to new marks of shell and consequent changes of machines. The remaining 27 held new contracts, under which the plant was not then completely installed.

(2) National factories were divided into (a) factories for shell, fuses, cartridges, &c., and (b) stores and bonds, technical schools, instructional factories, etc. Under the first head good progress had been made. Under the second the returns for the 142 stores were complete to January, 1918, and others were coming in satisfactorily. Taking both heads together, 197 inventories had been received, and 155 were being prepared.

(3) Miscellaneous returns had been received for :—

Railway sidings to the value of	..	..	..	£ 1,900,000
Motor cars and lorries	do.	..	..	87,828
Cranes and grabs	do.	..	..	13,646
Railway wagons	do.	..	..	739,152
Iron ore grabs	do.	..	..	2,386
				<hr/>
				£2,743,012

Further, in the Explosives Supply Department, the register of buildings, plant, and machinery was still in the course of being compiled. It was complete for about 15 establishments. Lands and buildings were being examined by the Lands Department, and the advisability of purchasing property acquired under the Defence of the Realm Regulations was being considered.

¹ D.F.3/P.A.C/32.

The question of the transfer of government plant from one contractor's work to another's came before the Financial Secretary's Standing Committee on 16 May, 1918, in a discussion upon draft General Memorandum No. 92. It appeared that issue warrants were not always used. A sub-committee was appointed to consider the records and account for these transfers. On 22 May the Controller of Salvage and Stores reported that movements had been made on issue warrant for new plant, but not for second-hand plant. He proposed that all government plant should be in the hands of a special department which should control all transfers. The progress being made with the inventories was slow and ought, he considered, to be accelerated. The sub-committee was accordingly strengthened, and the Demobilisation and Reconstruction Committee was informed that investigations were being made.

Mr. Guy and Mr. Garnsey reported, in June, that an enquiry was being made into the steps taken to ensure that rent was charged to contractors for buildings, plant, and machinery in which the Ministry retained an interest. With regard to machinery and machine tools, the results were as follows:—Until May, 1917, the departments responsible for the supply of machine tools had been: (1) T.M.1., which dealt with requisitions from the Trench Warfare Supply Department, the Air Board, the Mechanical Transport and Railway Materials Departments, Inland Waterways, the War Office generally, the Mechanical Warfare, Optical Munitions and Glassware and Gauges (A.M.8) Departments, and (2) T.M.2., which dealt with machinery for guns, shells, fuses and ammunition. These departments had allocated machinery on requisitions from supply departments. No records were kept of machinery so allocated. According to a statement made by T.M.1., purchases were made by supply departments without reference to them, requests for allocation only being received after the completion of purchase. Enquiry had then been made whether the supply departments kept any records of machinery and machine tools lent to contractors.

"The result of this enquiry has been to convince me that no proper steps have been taken by supply departments to inform *any* Accounts Department of the movement of machinery or tools to contractors and of charges to be made in respect thereof. The only available information would appear to be on the Contract Jacket. Even this source of information is incomplete, as it seems clear that Supply departments have in some cases acted independently of the Contracts Department."¹

In order to remedy this state of things, the Finance Branch in charge of inventories (M.F.6) had circulated to all supply departments (except Aeronautical Supplies) an "Inventory Form A," to be sent out to contractors by supply branches, and, when returned, forwarded to the Accounts Branch (D.M.A.6) so that their records might be checked and completed. A schedule of all contractors for the Aeronautical Supplies Department who had received machinery and machine tools was also prepared.

¹ Report of Accounts Department for May 1918 (Hist. Rec./R/450/17).

Since May, 1917, the movement of machinery and machine tools was supposed to be controlled by the Munitions Works Board, and all requests for supplies ought to have come through them. In fact, however, the Central Clearing House (Engineering Department) and also supply departments still dealt with machinery and tools independently of the Munitions Works Board.

Thus, until May, 1917, arrangements for recording and charging rent had been almost entirely lacking; and since that time they had not been perfect, owing to overlapping between the Munitions Works Board, the Central Clearing House and supply departments. Examples were also given of cases where the affixing of name-plates to Ministry machines had been neglected.

In one case a company had received £18,000 worth of machinery in June, 1917, from the National Projectile Factory, Cathcart, and £1,074 worth from the National Projectile Factory, Lancaster. There was an agreement to pay £650 per annum in the form of rent. The agreement, however, was not drawn up until March, 1918, no record of the machinery received from Lancaster appeared to exist, and no schedule of the machinery was attached to the agreement when it was drawn up.

Steps had, however, already been taken before Mr. Guy and Mr. Garnsey's report to create order out of the disorder which existed. In March, 1918, F.A.14. were instructed to take over the audit of capital expenditure from M.F.6. and a new section was organised. They found themselves unable to obtain records of advances made or sanctions given prior to the creation of the Munitions Works Board. They found that in a number of cases no invoices had been supplied to contractors for machinery supplied, and that there were no proper records on the books of D.M.A.6. They failed in a number of cases to find any contract to show the amount of expenditure authorised or, indeed, the existence of authorisation.

A new procedure was accordingly laid down and the Contracts Departments was instructed to prepare a schedule of contracts involving capital advances showing amongst other details the amount of the advance, the ownership of the property, the authority on which the advance was made. These schedules, which carried all forms of advances, including machinery and tools, were then passed to the Munitions Works Board for checking and to F.A.14. for final audit. In a report, dated 31 March, 1919, F.A.14. stated that the number of contracts taken over by them from M.F.6. on 1 May, 1918, amounted to 754, and that they had subsequently discovered 462 which were in existence prior to that date but not notified to them. It was impossible to place great reliance on the inventories prepared when over 25 per cent. of these contracts had escaped attention.

From the information obtained from the schedules of past and new contracts supplied by the Contracts Department and checked by the Munitions Works Board and other technical sections, F.A.14. prepared a register which enabled them to make sure that money grants and loans were properly expended and that proper authority and sanction had been obtained.

As a result of this schedule and the fresh endeavours which were made in July and August to complete and verify the inventories, the Ministry found itself at the time of the Armistice not, it is true, in possession of an accurate statement of part of the national wealth which it had acquired—that it never had—but at least with a machinery designed for the construction of such a statement.

V. Reconstitution of the Munitions Works Board: General Memorandum No. 87.

A discussion which led to the reconstitution of the Munitions Works Board was opened in consequence of representations made to the Minister in September, 1917, by the Controller of the Priority Department, Mr. (later Sir Edgar) Jones.¹ At this time there were a very large number of works extensions contemplated or in course of construction for various Government Departments. New aircraft factories and aerodromes, wheat storage sheds at the western ports, several refrigerating stores for the Ministry of Food, and a number of other large schemes were all calling for a considerable quantity of steel, and were being delayed through their mutual interference. Mr. Edgar Jones requested, as a matter of great urgency, that the whole position should be reviewed by Sir John Hunter and himself, so that the output of steel should be diverted to the points where the requirements were most vital and pressing. Eighteen months earlier he had proposed that Sir John Hunter should be the authority to settle with the Priority Department the order in which construction should proceed in the case of all extensions involving large quantities of steel. The situation now was still more critical, and the only hope of an early remedy was the completion of some of the steel works and a firm concentration on a selected few of the required extensions. Mr. Edgar Jones had been prevented from taking this course by a fear of encroaching upon the sphere of the Munitions Works Board, but he wrote, "the Munitions Works Board has not arranged any scheme such as I have suggested, but has concerned itself mainly with the constructional features and scale of plan and financial aspect of proposed extensions." There accordingly appeared to be no reason why such a scheme should not be taken in hand at once.²

The Minister, on 27 September, appointed a Council Committee "to consider the question of the responsibility for allocating and giving priority to steel for construction of various new works and extensions in such a way as to ensure its use in the most efficient manner according to the urgency, progress, and circumstances of each extension."³

The committee met on 25 October and reached the provisional conclusion that representatives of the Factory Construction Department (with the addition of the Munitions Works Board), the Steel Department, and the Priority Department, should form a committee

¹ M.C. 283.

² Minute by Mr. Edgar Jones, 25 September 1917 (M.C. 283).

³ Munitions Council Committee 81. The members were:—Sir L. Worthington Evans, Chairman; Sir Arthur Duckham, Sir John Hunter, Sir H. Hambling, Sir Graham Greene, Mr. Edgar Jones, and Sir Glynn West.

to deal with the priority of steel for extensions. They also considered a suggestion that the Munitions Works Board should be transferred to the Steel Group of the Munitions Council to work with the Factory Construction Department.

At this point the situation was changed by the appointment, on 31 October, of a Works Construction Sub-Committee of the War Priorities Committee, on which the War Office, Admiralty, Ministry of Munitions and Ministry of National Service were represented. Sir John Hunter was nominated to represent the Ministry. The Council Committee's proposal accordingly fell through, but there remained the question of the proposed transfer of the Munitions Works Board. In January, 1918, the Co-ordinating Committee recommended to the Minister that Council Committee 81 should proceed to consider whether the constructional work of the Ministry could not be brought under one Works Construction Department, and if this could be done, to prepare a scheme. They had before them a report from the Requirements and Statistics Department showing the then state of building construction work being done for the Ministry.¹ The total cost shown amounted to nearly £60,000,000, and this did not include buildings costing less than £5,000. The questions put to the departments concerned as to the causes of delay had only been answered in about one-third of the cases. From these replies it appeared that the delays averaged from eight to twelve weeks, and ranged from one and a-half weeks in the case of ball-bearing factories to twenty-eight in the case of mechanical transport, for which the priority granted was low. There was no department in the Ministry watching the progress of building construction generally from this point of view.

Meanwhile, Sir John Hunter in conference with Mr. Carmichael, who was at that time chairman of the Munitions Works Board, drew up a draft scheme for the amalgamation of the Munitions Works Board and the Factory Construction Department. On 29 January Sir John Hunter submitted for the consideration of the Council Committee a draft memorandum on the powers and functions of the Munitions Works Board, calling special attention to the following points: (1) The object was rather to co-ordinate the work of the Board with that of the Factory Construction Department than to amalgamate the two. This object was secured by making Mr. Shaw, the Director of Factory Construction, a member of the Board, and clearly defining the several functions of these two bodies. (2) It was provided that the Controllors of Finance and Contracts should be consulted, when necessary, with regard to financial assent to proposals and to the terms of contracts to give effect to proposals when approved. Otherwise the Board would be responsible for the financial approval of all Ministry schemes for expenditure on buildings, plant, etc., whether for national factories or for assisted contracts. (3) The Factory Construction Department would retain responsibility for the execution of constructional work on National Projectile Factories and steel extensions. (4) Subject, where necessary, to the decisions of the

¹ Copy of this report in M.C. 283.

Works Construction Sub-committee of the War Priorities Committee, the approval of the Munitions Works Board would carry with it the necessary priority.

The transfer of the Munitions Works Board to the Steel Group was recommended, because it was desirable that the work of the Board in approving all Ministry schemes and supervising constructional work in private firms should be closely associated with that group and come under the direction of Sir John Hunter as representing the Ministry on the Works Construction Sub-Committee above mentioned. This change would not affect the financial control exercised by the Finance Member of Council.

Sir John Hunter reviewed the other departments of the Ministry dealing with constructional work, and made recommendations in certain cases for their closer association with the Steel Group. The existence of a separate works organisation for explosives factories and for Woolwich and Enfield might be justified by the special character and conditions of the work. But there appeared to be no objections to the transfer of constructional work for the Central Stores, Trench Warfare Supply and Housing Departments to the Steel Group, as branches under the direct control of the Munitions Works Board.

On 8 February Sir L. Worthington Evans, the Financial Secretary, requested Sir W. Graham Greene, the Secretary, to take the chairmanship of the Council Committee which had been reconstituted to deal with its new reference. The Financial Secretary wrote :—

“ My general idea is that the Munitions Works Board should be a professional body, responsible for exercising professional, technical and (through its Finance representatives) financial control of all building work, involving payment of Ministry of Munitions money. It should be kept quite distinct from the various sections of the Ministry, such as the Factory Construction Branch, the Housing Construction Branch, and similar branches of the Trench Warfare Department, and the Assisted Works Branch, which are, in fact, the Supply branches responsible for the supply of buildings for the Ministry. The Committee might well consider, I think, how far it would be possible to amalgamate these branches, and form one Construction Department responsible for all building works. In considering this latter question, it will no doubt be remembered that the buildings required by the Explosives Department involve special technical consideration, and it may be necessary that these should be dealt with separately. In any case, the Munitions Works Board should be responsible to the Financial Secretary.”

At a meeting of the committee on 26 February the above minute was read. Sir John Hunter explained that he adhered to his proposals defined in his minute of 29 January, but the committee agreed to follow the lines laid down by the Financial Secretary, and the draft memorandum on the functions of the Munitions Works Board was accordingly amended.

On 18 March, 1918, the Council Committee reported. They submitted the revised draft of the General Memorandum defining the

functions of the Munitions Works Board, and recommended that it should be issued. They mentioned two reservations with regard to canteens and housing which they thought it unnecessary to mention formally in the memorandum. (1) The Munitions Food Section had only recently taken over the work of the Canteen Committee of the Liquor Control Board, and the Labour Group could not at the moment agree to transfer to the Munitions Works Board the construction of canteens in controlled establishments. (2) If the Treasury continued to insist that post-war ownership should be arranged before the Ministry could build houses, the Labour Group must retain the right to approach the Treasury through the Finance Member at an early stage in the negotiations, rather than through the Munitions Works Board.

After enquiries made in the various groups as to the possibility of centralising all works construction in one department, the Committee did not recommend the disturbance of existing arrangements. In nearly all cases the work of construction sections was intimately bound up with the supply departments containing them. Control would be sufficiently ensured by the strengthening of the Munitions Works Board and by the Works Construction Sub-Committee of the War Priorities Committee.

General Memorandum No. 87, stating the fresh definition of the powers and functions of the Munitions Works Board was issued on 10 May. The Board was declared to be established for the following purposes :—

“(a) Consideration and approval or rejection of all proposals for capital expenditure on constructional work to be done by or for the Ministry, or to be undertaken by a certified undertaking, controlled owner, or other contractor engaged on munitions work.

“(b) Settlement of financial terms in cases where it is necessary that they should be settled with a controlled owner or other contractor engaged on munitions work before he will undertake such expenditure.

“(c) Control of the method and cost of execution of the work and advice as to the extent to which capital expenditure actually incurred is reasonable and necessary.”

The term “ constructional work ” was to be taken in the widest sense, including not only the provision of machinery, plant, and tools, but also constructional work for mining, manufacturing processes, and transit facilities.

The Board now consisted of the following members :—Mr. James Carmichael (Chairman), Mr. G. W. Humphreys (Vice-chairman), Mr. Seager Berry, Sir Alfred Gelder, Mr. W. Armstrong, Mr. J. B. Maclean, Mr. W. B. Shaw, Mr. C. J. Maslin (representing the Contracts and Finance Departments), Sir Howard Frank (Director-General of Lands Department, also representing the Board of Agriculture), Mr. Frank Baines (Principal Architect of H.M. Office of Works). “ The Controller of Munitions Finance and the Controller of Munitions Contracts will be consulted as necessary with regard to financial assent to proposals, or the terms of contracts to give effect to proposals approved by the Board, as the case may be.”

After detailing the procedure for submitting proposals, the memorandum laid down that, when proposals had been approved, in certain specified classes of cases, the arrangements in regard to supervision and control of capital expenditure would be delegated by the Board to various authorities which were named.

In respect of these schemes, the Finance Department might accept certificates signed on behalf of these authorities instead of certificates from the Board. The Director of Factory Construction was charged with projectile, aircraft and cartridge factories, billet-breaking plant, mining camps, iron and steel extensions, coke ovens not attached to collieries, and certain spelter works.

The Department of Engineering was to be consulted whenever, in negotiating a new supply contract, the contractor was found to require fresh plant, machinery, or machine tools, and also in the case of new programmes for supplies from national factories. The Board was to consult the departments and advise the Contracts Department upon such matters as the employment of direct labour and the "time and line" basis in connection with constructional work.

VI. Report I (1918) of the Select Committee on National Expenditure.

Reference has already been made in this Volume to the first report of the Select Committee on National Expenditure for the year 1918.¹ We are concerned here mainly with the criticisms which that committee passed upon the work of the Munitions Works Board and with the effects of these criticisms. The opinion which the committee expressed, however, in this connection was primarily influenced by the view which they held about the point at which financial control should begin, and since the policy of the Ministry with reference to control of capital expenditure was itself the outcome of an opposite opinion on this wide question, it will be necessary to revert to the subject.

The committee contended on the one hand that "immersed in their work and exercising the whole of their energies in extending the manufactures which they were organising, the Supply officers seem . . . to have underestimated the importance of the financial aspect. We do not observe sufficient recognition on their part that they stand towards the Nation somewhat in the position of Trustees who have monies entrusted to their charge."² In consequence they were "of opinion that a clearly defined stage should be laid down at which Finance, the Department of Requirements and the Supply Department concerned should consider fully all the means of meeting the various demands of the programme before the Ministry at the moment. Unless they have at an early stage the whole programme of the Department before them, the Finance Branch are quite unable to weigh the merits of the different means of meeting it, and the demands of public

¹ Vol. III, Part I, Chap. IV.

² *First Report (1918) from Select Committee on National Expenditure* (23) para. 9.

economy are at least sufficiently urgent to require that the omission of the essential review in the interests of proper expenditure should not be tolerated.”¹

On the other hand, they did not consider that the Munitions Works Board had paid sufficient attention to the question of “the necessity of each proposal and for new capital expenditure,” and in consequence they thought that such control as did exist was not simply imposed at too late a stage, but was ineffective at the stage at which it should have become operative. The Munitions Works Board, the committee stated, “largely confined itself to the examination of proposals from the construction point of view and the supervision of their execution.” This assertion the Chairman of the Munitions Works Board, Mr. Carmichael, considered to be an “entire mis-statement,” pointing out that the Board had always largely concerned itself with finance, which in a large proportion of cases was the point which chiefly interested the controlled owners, and that the approval of every scheme of extensions involved financial sanction. That reply, however, although perfectly true, did not in fact meet the committee’s criticism. What the committee wished to prevent was the piecemeal consideration of proposals and piecemeal sanction. The Munitions Works Board occupied itself with considering the details of the costs of the proposed constructions and with the amount of financial assistance which, as a result, it seemed reasonable to give, with the probability of increased output resulting; but it did not endeavour to consider the supply departments’ programme as a whole or to link up current with earlier applications for assistance.

It was exactly this general survey that the committee deemed to be of paramount importance. They accordingly recommended definitely :—

“That the Finance Branch, through early association with proposals, be in a position authoritatively to decide on the necessity of capital expenditure and the terms of the assistance to be granted by the Ministry, the Munitions Works Board limiting itself to the consideration of structural details and, through the Assisted Works Branch, to the supervision of their execution ;

“that the Finance Branch exact more definite undertakings than have hitherto been obtained regarding the completion of extensions and equipment within the promised time. This can be made a condition of the Agreement where Government assistance is involved, as is the case in the majority of instances, but it should also be enforced in every case where permission to construct, priority and remission from excess taxation are allowed ;

“that, in order to concentrate the available labour and material on the more necessary work of extensions involving capital expenditure, a far more vigorous scrutiny be carried out in the Ministry itself than appears to be the case at present ;

¹ *First Report (1918) from Select Committee on National Expenditure* (23), para. 20.

“ that the Munitions Works Board should consider whether any economy in staff or expenditure under contract can be effected, consistently with the safeguarding of the special purposes of the departments by the unification of the present separate construction departments of the Ministry.”

To the first of these recommendations Mr. Carmichael and a number of other financial advisers in the Ministry were definitely opposed on the grounds (also an argument of the Treasury) that the amount which had to be paid for any store ultimately depended on technical knowledge which the Finance Departments did not possess. This argument was sound only if the money involved was always an unvarying multiple or fraction of the quantity of the stores involved. Apart from this point, however, there were in fact two other questions not always clearly distinguished. The one was whether it was possible or justifiable at this or any other stage in the war to limit the programme for any store producible within the United Kingdom for financial reasons ; the other was whether it was possible or justifiable to modify the allocation of such programmes for similar reasons between different domestic sources of supply.

The Financial Secretary's Standing Committee, in a special meeting convened on 18 March to consider the Select Committee's report, agreed so far as the first of these two questions was concerned that it would be possible for the Finance Department to countercheck the programmes of the Department of Requirements and Statistics, but “ so long as finance was not a limiting factor ” considered such a course undesirable.

Finance (so far as domestic purchases are concerned) must either always or never be a limiting factor in war time. It cannot suddenly acquire importance as some officers in the Ministry appeared to hope it would.¹ Domestic purchases may be paid for from the proceeds of taxes, or of taxes plus loans, or of taxes plus loans plus notes. If even the beginning of inflation is not, and it was not either by the Ministry or the Treasury, accepted as the point at which finance begins to squeeze, then there is no such point, for finance thereafter will swell as currency swells. Means of payment—of a sort—will not give out, but the policy will break down when it results in the drying up of the food supply or in revolution.

While, however, as a result of this doctrine, the Financial Secretary was not prepared to recommend that the Finance Department should endeavour to check the quantity of the programmes, he was in agreement with the Select Committee so far as the allocation of that programme was concerned, and minuted the Minister accordingly.

“ The duty for arranging production,” he wrote, “ (after demands had been checked by the Requirements and Statistics Department) rests with the Supply Departments. At this stage financial control should, I think, be exercised. At present

¹ Minutes of Financial Secretary's Standing Committee, 18 March 1918 (C.R. 4386.)

the control is exercised by the Contracts Department and in practice resolves itself chiefly into a consideration of individual contracts.

It is suggested that the supply departments should present their production programmes as a whole for financial consideration.

The programmes would then be examined to ensure that proper allocation was made between National Factories and contractors, and with contractors producing most efficiently and cheaply. Due considerations would be given to the state of account between the Ministry and the contractor and the effect on any capital advances made by the Ministry of cutting off or continuing any particular contract.

The examination of programmes should, I think, be undertaken by a Committee under the chairmanship of the Financial Secretary or his representative with Council Member R. and L., and the Controller of the Engineering Department (so far as ordnance supply is concerned) and the Council Member representing the Supply Programme under consideration.”¹

The result of this proposal was the issue of General Memorandum No. 71² which gave to the Finance Department the power to express their views on the programme prepared by the Requirements and Statistics Department when they were passed to the supply departments, with a right of appeal to the Co-ordinating Committee with the Financial Secretary in the chair.

At the same meeting of the Financial Secretary's Standing Committee, at which the Financial Secretary's minute quoted above was discussed, it was decided to ask the Accounts Department to furnish particulars concerning the authority on which demands were made for general construction work.

The Director of Factory Audit and Costs reported on the control exercised by his department under the following heads :—

(1) *National Factories*.—All these had imprest accounts for meeting payments to contractors. Control was exercised as follows :—(a) For lump sum contracts the factories had to obtain a certificate from the Director of Factory Construction before making any payment to contractors ; (b) for cost and percentage contracts there was also a detailed audit of contractors' books, final payments being made on the joint certificate of the Director of Factory Construction and the Audit Department ; (d) for the contracts now running for aircraft factories the contractors themselves were furnished with imprests, and it was arranged that, before any further advance was given to contractors, certificates from the Director of Factory Construction must be produced in order that money might be paid. The contractors' accounts were being audited in detail, and final payments would need to be supported by the joint certificate of the Director of Factory Construction and the Audit Department.

¹ C.R. 4386.

² See Vol. III, Part I, p. 123.

(2) *Assisted Contracts*.—The procedure here required tightening up. Comparatively few technical certificates were obtained before payments were made to contractors, and when obtained they did not always state the actual value of the work done. This state of things was very unsatisfactory, the more so because the audit of contractors' accounts was often much delayed. A proper scheme for control under that head, such as had been in force for national factories from the first was now being considered. Assisted contracts had been transferred quite recently to the Factory Audit and Costs Department.

(3) *Housing Schemes, Hostels, etc.*—These accounts had not yet come to the Factory Audit and Costs Department for audit purposes. No payments had been made without technical certificates.

On 20 March the Director of Factory Audit and Costs wrote a further memorandum. He remarked that the most important proposal in the Select Committee's report seemed to be that the Munitions Works Board should examine in every case as fully as possible the necessity for the expenditure, taking account not only of the requirements of the supply department, but of available capacity and possible spare capacity at other factories. . In so far as the check on expenditure was concerned, the procedure would be :—

- (1) The Munitions Works Board to approve the scheme.
- (2) The contract to be reviewed and approved by the Board, and the Director of Factory Construction or other departments charged with the execution and supervision.
- (3) Payment to be made only on the certificate of the supervising technical department.
- (4) Financial audit of all cost and percentage contracts to follow as closely as possible on the payment made to contractors.
- (5) No final settlement to be made without certificates both from the technical department and from the Factory Audit and Costs Department.

On 24 April the Financial Secretary's Standing Committee appointed a committee to consider the control of capital expenditure by the Munitions Works Board. It met on 29 April, and came to the following conclusions :—

(1) *Aircraft Factories*.—It was stated that schemes for these were put in hand as soon as Treasury sanction was obtained. Detailed schemes were never submitted to the Munitions Works Board. The expenditure incurred often exceeded the Treasury sanction. It was agreed that the new General Memorandum No. 87 (then in draft) would meet this point by requiring that details of all constructional work must be submitted to the Board.

(2) *Plant for Government Schemes*.—Contracts for plant and machinery were now placed by the agents managing national factories, who previously submitted proposals to the supply branches dealing with hydraulic plant (A.M.3), or electrical power plant (E.P.S.) or the

Machine Tool Department. The proposals were never considered by the Contracts Department. The purchase of plant and machinery for explosives factories had been under the control of Sir T. Wolfe Barry's firm, and large economies had been effected. It was agreed that plant for national factories should be bought by the Ministry. Proposals should be made by the factory management and considered by the Munitions Works Board. Then detailed requisitions should be sent to contracts officers.

(3) *Plant for Assisted Contracts*.—Full details were furnished to the Munitions Works Board. The committee resolved that, contractors having a direct incentive to economical purchase, the Ministry need not intervene. The Munitions Works Board, where necessary, should obtain the approval of the branches dealing with plant and tools above mentioned.

(4) *Construction Contracts*.—These it was thought ought to be submitted to the Contracts Department.

(5) *Central Purchase for National Factories*.—It was desirable to extend this system for each group of factories. A contracts officer should be attached to the supply group responsible for managing each such group.

(6) *Centralisation of Control of all National Factories*.—The committee considered that a measure of centralisation was secured by the audit of factory accounts, the financial consideration of schemes, and discussion by the Council of matters submitted by the Council Members responsible for groups of factories. It was doubtful if it would be advantageous further to centralise control of groups of factories whose products differed widely in nature.

The detailed decisions reached as a result of these discussions and incorporated in General Memorandum No. 87 have been set out elsewhere.¹ Mr. Webster Jenkinson, the Controller of Factory Audit and Costs was, however, not satisfied with the solution of the particular problem on which he laid emphasis, namely, the checking of capital expenditure after sanction had been given. According to Article 12 of General Memorandum No. 87, arrangements in regard to supervision and control were delegated by the Munitions Works Board in the great majority of cases to the executive departments.

The question at issue was one which had exercised the minds of the finance officers of the Ministry from the earliest days of its history, just as it exercised the minds of the Public Accounts Committee during their discussions with the Treasury. The exact import, so far as the details of Ministry administration are concerned was excellently conveyed in a memorandum by Mr. Guy, written in the spring of 1918.

“The question of policy, therefore, is :—May Finance fairly regard such important bodies as H.M.O.W. and the D.F.C. as competent to control expenditure and to make no avoidable

¹ See above, p. 95.

departures from sanctioned plans, or must Finance follow its sanctions by a certain amount of direct supervision over expenditure? ”

Its wider import must be conveyed in another question. Were the financial authorities in the Treasury or in the Ministry of Munitions carrying out their obligations to Parliament and to the taxpayer in delegating their right of detailed control to supply officers not primarily concerned with nor ultimately responsible for economy, on the grounds that such control involved technical knowledge not possessed by them, and, despite the knowledge acquired by repeated experience, that these supply officers would and did continually force their hands by the presentation of an unauthorised *fait accompli*? This wider question of principle will be discussed later in connection with Treasury control, it is enough to define it here in order to make clear the ultimate considerations influencing the opinions of the Controller of Factory Audit and Costs.

No finance officer in the Ministry was prepared to answer the first part of Mr. Guy's question with a firm affirmation. It was, in fact, clear that the Factory Construction Department had incurred expenditure in excess of the amounts sanctioned by the Treasury, without reference to the Finance Department, or check by the Munitions Works Board.¹ But both Sir L. Worthington Evans and Mr. Guy were opposed to the assumption by the Munitions Works Board of responsibility for supervising expenditure after sanction, the former emphasising the fact that “such checks as have been applied to the work of the Director of Factory Construction show that the work is well and expeditiously done, and any such supervision would tend to friction and delay and division of responsibility.”

Mr. Guy's concrete suggestion was that “periodical reports of expenditure incurred should be rendered to the Munitions Works Board, so that demands for additional sanction shall grow naturally from events of which the Munitions Works Board had progressive knowledge and shall not come as peremptory demands.” To this proposal Sir L. Worthington Evans agreed, adding that the Controller of Munitions Accounts constituted a check, as he had no authority to pay on account of capital expenditure without the sanction of the Munitions Works Board, and in addition, “the review by the Controller of Factory Audit and Costs . . . can be made more effective by becoming more and more in the nature of a running audit closely following upon expenditure.”²

All this, however, did not meet the point raised by the Controller of Factory Audit and Costs or do more than touch the fringe of the fundamental issue at stake. As Mr. Webster Jenkinson said, for more effective supervision during construction, which he considered “most essential,” it was not accountants but technical clerks that were required.

¹ Minutes of Financial Secretary's Standing Committee, 22 May 1918 (C.R. 4386.) ; Minutes of Munitions Works Board, *passim*.

² M.F./Gen./1556.

Throughout the summer of 1918, discussion of the problem, mainly as affecting the Director of Factory Construction, continued, and the ineffectiveness of the control instituted in practice was continually attracting the attention of the Financial Secretary's Standing Committee. Finally, on 6, November it was agreed that at this stage in the war "no commitments are probable and no change expedient."¹

VII. Treasury Control.

While the minds of certain officials in the Ministry were thus seriously exercised concerning the wisdom of the details of the system adopted in these constructional contracts, it is not without interest to consider the attitude of the Treasury towards the general problem of control. From 24 January, 1916, until 29 October, 1917, the Treasury waived its right to control capital expenditure, with the proviso that authority must be obtained from them for purchase of land or leases of land for a period of more than seven years, for lump sum expenditure on the erection of national factories and for expenditure on workmen's houses.

In accordance with this procedure and in reply to a Treasury letter dated 26 August, 1915, the Ministry notified the Treasury on 27 November, 1915, of a number of factories which they were either erecting or proposing to erect, including that at Gretna, the cost of which was "provisionally estimated" at £2,000,000. The total amount involved was rather under £14,000,000, exclusive of housing schemes. By February, 1916, the total estimated expenditure had risen to £19,000,000, plus a little over £2,000,000 for housing. By November, the estimate for Gretna had risen from the original £2,000,000 to £6,500,000, exclusive of the workers' houses, and the total for explosive factories alone from £2,500,000 to £17,244,000. To this increase the Treasury gave its covering sanction in November, 1916. By 15 May, 1917, a revised total estimate of £28,000,000 was submitted to the Treasury, Gretna having by this time grown to a total figure of £10,000,000. This revised estimate was mainly due to increases in the original plans of projected factories, but there were, in addition, a few more factories, of most of which the Treasury had been informed officially or semi-officially. In June, the Treasury gave its covering sanction for the bulk of this expenditure.

When, in October, of this year, the Treasury decided to limit the Ministry's right to expenditure on factories and extensions to £50,000, they requested that a complete statement of capital expenditure in connection with Government factories should be supplied to them so that they might be in full possession of the facts as soon as possible after the initiation of the new policy of reinforced control. On 27 March, 1918, the Ministry of Munitions submitted an elaborate statement giving the various "services," the amount of capital

¹ Minute of Financial Secretary's Standing Committee, 6 November 1918 (C.R. 4386.

sanction, the date of sanction, the estimate of capital expenditure up to the end of the first quarter of 1917, and the estimated cost of completion for explosive factories, magazines, and stores, the amounts advised to the Treasury in February, 1916, and actual expenditure to latest available date for other factories. From this statement it appeared that the estimated total cost would reach approximately £66,000,000. Mr. Dannreuther, in his covering letter explained that "at the time of the department's letter of 8/2/1916, it was not anticipated that the total capital expenditure on new Government factories, exclusive of Lands and Housing Schemes, would exceed £19,000,000, but the experience gained at Verdun, and subsequently on the Somme, showed that it was not only necessary to increase the gun programmes and especially to provide more long range guns and howitzers, but also to increase very largely the daily ration of ammunition per gun. . . . It was, therefore, decided to extend the scheme of National Factories in order to meet these increased demands."

On 1 May, five weeks after the receipt of this statement, the Treasury sent the following reply :—

"In so far as expenditure has already been incurred within the above total (*i.e.*, £66,000,000) in anticipation of Treasury approval, Their Lordships are prepared to give formal covering sanction so as to enable the charges to be admissible against the vote for the Ministry. But it will be for the Minister to defend any specific case of this kind on which the action of his department may be called in question. It is not a sufficient compliance with the terms of the Treasury minute of the 24 January, 1916, under which it was laid down that sanction should be sought for the expenditure of lump sums for such services, building of factories, storehouses, and inspection buildings (the allocation between individual undertakings being left with the Ministry of Munitions) to notify this department of expenditure long after it has actually been incurred."¹

The Ministry had, however, not concealed the fact in the course of their previous correspondence with the Treasury that they frequently exceeded their original estimates of capital expenditure without first consulting the Treasury.

The question of the exact character of the Treasury control resulting from the minute of 24 January, 1916, was most carefully studied by the Public Accounts Committee in 1917. Mr. Barstow then stated definitely that the Treasury took no responsibility for settling what should be spent on "services" such as Gretna. "The Ministry reports to the Treasury, but that is the only method of control." In these circumstances certain members of the Committee expressed themselves as being at a loss to understand what was the object of the lump sum estimates. These estimates confessedly bore no relation to final costs; no action was taken when they were exceeded; and no responsibility recognised by the Treasury for the total of these final

¹ HIST. REC./R/420/6.

costs. The explanation given by the Treasury official giving evidence was that "the lump sum estimate had a value . . . in that it requires the department that submitted it to make up its new plans and to define its plans." This was, however, not always the case. "The original provisional estimate of £2,000,000 (for Gretna) was not an estimate in the proper sense at all, as no material existed on which any judgment as to probable cost could be based. . . . Mr. Quinan who was solely responsible for the design of the factory, absolutely refused to give any indication as to the cost of the factory until his plans were more or less completed, which was not until some months later."¹ In reality, the only use of the estimates and the sanctions appears to have been to enable the Ministry to bring to account in any year the charges incurred.

The fundamental question at issue was well summarised in the following single question and answer in the course of the proceedings of the Public Accounts Committee:—

"But you do not think that this generous waiving of control by the department, which after all represents the spenders, exposes the Nation to immense waste? Is it not the case that every spending department which has not to justify its expenditure to the person who provides the money grows in extravagance?" If you are satisfied with the mere statement at the beginning that all expenditure at Gretna, however much it may grow, is for the purpose of providing the Nation with propellants, is not that an inevitable invitation to extravagance?" (Mr. Barstow) "On the contrary I think that responsibility had to be placed upon the department that is capable of exercising it. It would merely deceive the country and this Committee if the Treasury proposed to concur in estimates for such a factory as Gretna. If I, as representing the Treasury came to you and said that the Treasury were quite satisfied that the expenditure was properly incurred, and you, as the Public Accounts Committee, relied upon the Treasury to give you such an assurance, I could only feel that the Treasury were deceiving you."²

Mr. Barstow's reply appeared to indicate that whether the Ministry notified the Treasury of its proposed expenditure before or after that expenditure was incurred, became a point of academic interest.

It is indeed open to question whether the Treasury did not in point of fact always treat the question itself as an academic one, for although they pressed on 1 May, 1918, for a "statement showing as regards the principal categories of factory the maximum output of which they are capable and the output reached in any given recent period," no reply was submitted until the middle of the following January and no reminder was sent to the Ministry until November.

¹ Memorandum by Major Corbett, and statement submitted by Mr. Bowers, to A.F.5. (C.R. 4629).

² *Report from Public Accounts Committee, with Minutes of Evidence*, 31 July 1917, Qn. 2333.

When the Ministry did reply it was to the effect that the statistics could not be supplied owing to the continual "change over" at national factories caused by the abnormal military situation during the past year.

The Treasury had asked in the same letter what was the "financial machinery for checking the demands of the supply departments for new construction and for ensuring that full use is made of all available factories and plants before new construction is authorised." This, as will be remembered, was exactly the problem on which the Select Committee on National Expenditure had expressed such definite views. Despite the protracted discussions which followed the issue of their report and the various discussions which resulted therefrom, it proved less easy to answer this question a month after the Armistice than might have been expected. In the original draft the Ministry replied, "The Board was instructed in the early part of last year to compile and to maintain a Register of available factories, and they insist that, before passing any new building scheme, the Supply department concerned shall state that they have examined the Register and have satisfied themselves that no suitable building already exists." This section was, on second thoughts, deleted "because the register has never been made use of."

The Treasury, therefore, appear to have had two reasons for deciding to throw the full responsibility for capital commitments upon the Department which incurred them. It argued that when the demands of the War Office were most imperative, supply was the predominant consideration and finance must not be a "limiting factor." It also claimed that it did not, could not and should not possess the technical knowledge requisite for checking the details of constructional contracts or estimating the necessity of constructional programmes. For the full exercise of the first of these two functions it would have been necessary to employ technical clerks as well as accountants to watch and check the work of the executive departments of the Ministry and report to the Treasury. Such a procedure would no doubt have been contrary to Treasury tradition and would have involved the acceptance by that Department of obligations which it had in the past not recognised.

It is of interest to note the various views held with reference to the possibility of any independent Department or section successfully checking constructional contracts. The Treasury who were farthest away from the concrete problem were emphatic that to do so was impossible; Sir L. Worthington Evans, who was in constant touch with the officers responsible for construction and thoroughly familiar with the general principles at stake, while less emphatic on the point of possibility, was unwavering in his opinion that interference was impolitic; Mr. Webster Jenkinson, who in his capacity as Controller of Audit, was thoroughly familiar with the detail as well as the principles not only denied impossibility, but was equally emphatic that some measure of outside control was required. In point of fact, the problem in the Ministry was not simply one of principle, but also of persons;

and it is at least certain that the task could only have been successfully performed by a man or a Department possessing exceptional authority. The Treasury refused to exercise the authority which they undoubtedly possessed, on the grounds that by doing so they would be overstepping the limits of their proper functions.

The Treasury, however, could not plead the limitation of their competence as a ground for refusing to restrict the demands of the Ministry for grants for capital purposes. In this case they confessedly abrogated their rights. If the reason for this abrogation was, as was alleged, again lack of technical knowledge, then it is not clear why, by their minute of 29 October, 1917, they should have thought it worth while to reclaim their rights. The explanation is, in all probability, a different and a simpler one. The fear of restricting the output of munitions accounted for the relinquishing of their functions, and fear of the unrestricted outlay of capital accounted for their resumption. Moreover, in this instance as in so many others, the Select Committee on National Expenditure brought pressure to bear.

In conclusion, it may be said that, during the period of greatest stress, a close supervision of capital expenditure by the Treasury was impracticable, and would only have led to friction and delay. The Treasury were, therefore, obliged to rely in a large measure upon the advice of the financial officers of the Ministry, with whom the Treasury officials were in close personal touch, and when the time appeared to be ripe for the resumption of stricter financial control within the Department, formal restrictions were, after consultation, imposed by the Treasury in October, 1917, which reinforced the authority of the Finance Department.

APPENDICES

APPENDIX I.

(CHAPTER II, p. 31)

Munitions of War Act, 1915. Part II.

4. If the Minister of Munitions considers it expedient for the purpose of the successful prosecution of the war that any establishment in which munitions work is carried on should be subject to the special provisions as to limitation of employers' profits and control of persons employed and other matters contained in this section, he may make an order declaring that establishment to be a controlled establishment, and on such order being made the following provisions shall apply there to :—

- (1) Any excess of the net profits of the controlled establishment over the amount divisible under this Act, as ascertained in accordance with the provisions of this Act, shall be paid into the Exchequer.
- (2) Any proposal for any change in the rate of wages, salary, or other emoluments of any class of persons employed in the establishment, or of any persons engaged in the management or the direction of the establishment (other than a change for giving effect to any Government conditions as to fair wages or to any agreement between the owner of the establishment and the workmen which was made before the twenty-third day of June, nineteen hundred and fifteen), shall be submitted to the Minister of Munitions, who may withhold his consent within fourteen days of the date of the submission :

Provided that if the Minister of Munitions so directs, or if the Minister's consent is withheld and the persons proposing the change so require, the matter shall be referred for settlement in accordance with the provisions of the First Schedule to this Act, and the consent of the arbitration tribunal, if given, shall in that case have the same effect as the consent of the Minister of Munitions.

If the owner of the establishment or any contractor or sub-contractor employing labour therein makes any such change, or attempts to make any such change, without submitting the proposal for the change to the Minister of Munitions or when the consent of the Minister has been withheld, he shall be guilty of an offence under this Act.

- (3) Any rule, practice, or custom not having the force of law which tends to restrict production or employment shall be suspended in the establishment, and if any person induces or attempts to induce any other person (whether any particular person or generally) to comply, or continue to comply, with such a rule, practice, or custom, that person shall be guilty of an offence under this Act.

If any question arises whether any rule, practice or custom is a rule, practice or custom which tends to restrict production or employment, that question shall be referred to the Board of Trade, and the Board of Trade shall either determine the question themselves or, if they think it expedient or either party requires it, refer the question for settlement in accordance with the provisions contained in the First Schedule to this Act. The decision of the Board of Trade or arbitration tribunal, as the case may be, shall be conclusive for all purposes.

- (4) The owner of the establishment shall be deemed to have entered into an undertaking to carry out the provisions set out in the Second Schedule of this Act, and any owner or contractor or sub-contractor who breaks or attempts to break such an undertaking shall be guilty of an offence under this Act.
- (5) The employer and every person employed in the establishment shall comply with any regulations made applicable to that establishment by the Minister of Munitions with respect to the general ordering of the work in the establishment with a view to attaining and maintaining a proper standard of efficiency and with respect to the due observance of the rules of the establishment.

If the employer or any person so employed acts in contravention of or fails to comply with any such regulation, that employer or person shall be guilty of an offence under this Act.

- (6) The owners of an establishment shall have power, notwithstanding anything in any Act, Order, or deed under which they are governed, to do all things necessary for compliance with any provisions of this section, and any owner of an establishment shall comply with any reasonable requirements of the Minister of Munitions as to information or otherwise made for the purposes of this section, and, if he fails to do so, shall be guilty of an offence under this Act.

Where in any establishment munitions work is carried on in some part of the establishment but not in other parts, the Minister of Munitions may, if he considers that it is practicable to do so, treat any part of the establishment in which munitions work is not carried on as a separate establishment, and the provisions of this Act shall take effect accordingly.

5.—(1) The net profits of a controlled establishment shall be ascertained in accordance with the provisions of this section and rules made thereunder and the amount of profits divisible under this Act shall be taken to be an amount exceeding by one-fifth the standard amount of profits.

(2) The standard amount of profits for any period shall be taken to be the average of the amount of the net profits for the two financial years of the establishment completed next before the outbreak of the war or a proportionate part thereof.

(3) If in any case it appears or is represented to the Minister of Munitions that the net profits or losses of all or any other establishments belonging to the same owner should be brought into account, or that the average under this section affords or may afford an unfair standard of comparison or affords no standard of comparison, the Minister may, if he thinks just, allow those net profits or losses to be brought into account, or substitute for the average such an amount as the standard amount of profits as may be agreed upon with the owner of the establishment.

The Minister of Munitions may, if he thinks fit, and shall, if the owner of the establishment so requires, refer the matter to be determined by a referee or board of referees appointed or designated by him for the purpose, and the decision of the referee or board shall be conclusive on the matter for all purposes.

(4) The Minister of Munitions may make rules for carrying the provisions of this section into effect, and these rules shall provide for due consideration being given in carrying out the provisions of this section as respects any establishment to any special circumstances such as increase of output, provision of new machinery or plant, alteration of capital or other matters which require special consideration in relation to the particular establishment.

6.—(1) If any workman in accordance with arrangements made by the Minister of Munitions with or on behalf of trade unions enters into an undertaking with the Minister of Munitions that he will work at any controlled establishment to which he may be assigned by the Minister, and be subject to the penalty imposed by this Act if he acts in contravention of or fails to comply with the undertaking that workman shall if he acts in contravention of or fails to comply with his undertaking be guilty of an offence under this Act.

(2) If any employer dissuades or attempts to dissuade a workman in his employment from entering into an undertaking under this section, or retains or offers to retain in his employment any workman who has entered into such an undertaking after he has received notice from the Minister of Munitions that the workman is to work at some other establishment, that employer shall be guilty of an offence under this Act.

7.—(1) A person shall not give employment to a workman, who has within the last previous six weeks, or such other period as may be provided by Order of the Minister of Munitions as respects any class of establishment, been employed on or in connexion with munitions work in any establishment of a class to which the provisions of this section are applied by Order of the Minister of Munitions, unless he holds a certificate from the employer by whom he was employed that he left work with the consent of his employer or a certificate from the munitions tribunal that the consent has been unreasonably withheld.

(2) If any workman or his trade union representative complains to a munitions tribunal in accordance with rules made with respect to those tribunals that the consent of an employer had been unreasonably withheld that tribunal may, after examining into the case, if they think fit, grant a certificate which shall, for the purposes of this section, have the same effect as a certificate from the employer.

(3) If any person gives employment in contravention of the provisions of this section, he shall be guilty of an offence under this Act.

8.—(1) The Minister of Munitions may make rules authorising the wearing of badges or other distinctive marks by persons engaged on munitions work or other work for war purposes, and as to the issue and return of any such badges or marks, and may by those rules prohibit the use, wearing or issue of any such badges or of any badges or marks indicating or suggesting that any person is engaged on munitions work or work for war purposes except as authorised by those rules.

(2) If any person acts in contravention of, or fails to comply with any such rules, he shall be guilty of an offence against this Act.

9. This Part of this Act shall apply to any docks used by the Admiralty for any purposes connected with the war as it applies to establishments in which munitions work is carried on, with the substitution in relation to any such docks or persons employed in any such docks of the Admiralty for the Minister of Munitions.

APPENDIX II.

(CHAPTER II.)

Munitions (Limitation of Profits) Rules, 1915.

Rules made by the Minister of Munitions in Pursuance of Section 5 (4) of the Munitions of War Act, 1915, with respect to the Limitation of Profits of a Controlled Establishment.

The Minister of Munitions, in pursuance of Section 2 of the Rules Publication Act 1893, hereby certifies that on account of urgency it is desirable that the following Rules should come into immediate operation, and he therefore, in pursuance of the above Section and Section 5, sub-section 4, of the Munitions of War Act, 1915, hereby makes the following Rules, to come into operation forthwith as Provisional Rules :—

1. These Rules may be cited as “The Munitions (Limitation of Profits) Rules, 1915.”

2. In these Rules, unless the context otherwise requires :—

“The Act” means the Munitions of War Act, 1915.

“The Minister” means the Minister of Munitions for the time being.

“Controlled Establishment” means an establishment, or part of an establishment, in respect of which an order has been made by the Minister pursuant to Section 4 of the Act.

“Controlled Owner” means the company, firm, or person by whom a Controlled Establishment is for the time being owned or managed.

“Period of Assessment” means any period within the period of control for which profits are to be ascertained for the purposes of the Act.

“Period of Control” means the period commencing with the date specified by the Minister upon making an order under Section 4 of the Act, declaring an establishment to be a Controlled Establishment, and ending on the date when such establishment ceases to be controlled under the Act.

“Standard Period” means the two financial years of a Controlled Establishment completed next before the 4 August, 1914.

“Standard Amount of Profits” means the average of the amount of the net profits of a Controlled Establishment for the standard period ascertained or determined in accordance with the Act and these Rules, or a proportionate part thereof.

“The Referee” means the Referee or the Board of Referees referred to in Section 5 (3) of the Act.

“Audited” means audited by a chartered or incorporated accountant or by an accountant approved in any particular case by the Board of Trade.

3. The Interpretation Act, 1889, shall apply for the purpose of the interpretation of these Rules as it applies for the purpose of the interpretation of an Act of Parliament.

NET PROFITS OF A CONTROLLED ESTABLISHMENT.

4. For the purpose of these Rules net profits of a Controlled Establishment shall be deemed to be profits which would have accrued to the controlled owner in respect of work done in such establishment if such profits had been arrived at before bringing into account any sums in respect of income tax or interest or (except so far as the Minister may otherwise allow, or as may be necessary in any case where net profits or losses of any other establishment belonging to the controlled owner are brought into account for the purpose of the Act or these Rules) in respect of assets not employed in the Controlled Establishments and (subject as aforesaid) after allowing proper selling, office, or other expenses, or apportionments thereof.

STANDARD AMOUNT OF PROFITS.

5. Within six weeks of being requested by the Minister so to do the controlled owner shall deliver to the Minister such audited accounts and particulars in respect of the Controlled Establishment and of any other establishment belonging or partly belonging to the controlled owner as the Minister may require.

6. As soon as may be after the receipt by the Minister of the accounts and particulars referred to in Rule 5, or where any controlled owner has failed to supply the Minister with the same or any of them within the time appointed, then as soon as may be thereafter the Minister shall deliver to the controlled owner notice of the amount at which the Minister is prepared to agree the standard amount of profits, and unless within fourteen days thereafter the controlled owner shall serve upon the Minister notice of objection, the said amount shall be deemed to have been agreed and to be the standard amount of profits. If objection shall be so served and the Minister and the controlled owner are unable to settle the standard amount of profits by agreement, the matter shall be remitted by the Minister to the Referee for determination.

The amount which the Referee shall thereupon determine shall be deemed to be the standard amount of profits, whether the amount so determined be greater or less than the amount which the Minister was prepared to agree as aforesaid.

NET PROFITS FOR A PERIOD OF ASSESSMENT.

7. (i.) The accounts in respect of a Controlled Establishment for any financial year or period which includes a period of assessment shall, unless the Minister otherwise allows or requires, be made up to dates corresponding to those which, and on the same basis as nearly as may be as, the accounts in respect of that establishment for the standard period were made up.

(ii.) Where any such financial year or period is greater than the period of assessment, the net profits for the period of assessment shall, unless the Minister otherwise allows or requires, for the purposes of these Rules, be taken to be the same proportion of the net profits for the financial year or period as the period of assessment is of the financial year or period.

(iii.) Except so far as the Minister shall otherwise expressly declare in any particular case, no period of assessment shall be of greater length than one year, and if and whenever the Minister shall consider it necessary so to do, he shall fix the dates at which any period of assessment shall be deemed to commence and terminate.

8. Within three calendar months of the expiration of any financial year or period covering a period of assessment the controlled owner shall deliver to the Minister :—

- (a) Audited accounts and particulars for that financial year or period similar to those relating to the standard year or period required under Rule 5 ;
- (b) A statement setting out the adjustments (if any) which he claims should be made in the accounts delivered in respect of any matter to which due consideration may be given under Rule 9, and whether he requests any addition to the standard amount of profits under Rule 10 ;
- (c) A declaration (which, if so required by the Minister, shall be a statutory declaration) made by the controlled owner and his auditor (or in the case of the controlled owner being an incorporated company, by the chairman or managing director, or the responsible officer and the auditor of the company), declaring that the accounts are prepared strictly in accordance with Rule 7, except so far as is otherwise expressly therein declared, and that neither the controlled owner nor such officer has been party or privy to any transaction which might operate to prejudice the Exchequer in respect of excess profits under the Act.

9. In determining the net profits for any period of assessment, due consideration shall be given to, and any appropriate adjustments may be made in respect of all or any of the following matters, that is to say :—

- (a) Exceptional wear and tear of plant, buildings and machinery ;
- (b) Capital expenditure specially incurred for the purpose of munitions work ;

- (c) The probable value to the controlled owner at the end of the period of control of any plant, buildings, or machinery erected or installed or other expenditure incurred for munitions work, since the 4 August, 1914;
- (d) Special provisions or terms of any contracts entered into between the Government and the controlled owner;
- (e) Any exceptional services rendered by the controlled owner in connection with the Controlled Establishment;
- (f) Any increase in salaries or other emoluments of any persons engaged in the management or direction of the Controlled Establishment made since the end of the standard period, or any steps taken since the end of that period which might operate to decrease net profits;
- (g) Generally, any other matter which may appear to the Minister, or to the Referee, as the case may be, material to be taken into account;

Any such adjustments may be made either by additions to or deductions from the standard amount of profits, or by way of charges or disallowance of charges against profits for the period of assessment.

10. (i.) For the purpose of ascertaining the excess of the net profits of a Controlled Establishment for any period of assessment in any case where (a) the average amount of capital employed in a Controlled Establishment during the period of assessment is greater than the average during the standard period; or (b) the volume of output of a Controlled Establishment for the period of assessment is proportionately greater than the volume of output for the standard period, there shall, at the request of the controlled owner, be added to the standard amount of profits, whichever of the following sums may be greater, that is to say:—

- (a) Such sum (in lieu of, or, at the discretion of the Minister, in addition to the one-fifth referred to in Section 5 (1) of the Act), as shall be equivalent to interest at the rate of 8 per cent. per annum on such amount as the Minister shall decide, is the amount of the additional average capital, or
- (b) Such sum (in lieu of, or, at the discretion of the Minister, in addition to the said one-fifth), amounting to such fraction of the additional net profits which, in the opinion of the Minister, might fairly have been earned in the standard period by an equivalent additional volume of output as the Minister shall decide will, in the circumstances of the case, afford a reasonable return in respect of the additional volume of output.

In determining what is additional average capital for the purposes of this Rule, capital provided by the Government shall be excluded, but temporary loans (other than capital so provided) and undivided ascertained profits employed in the business may be treated as capital.

For the purposes of this Rule the output of a Controlled Establishment for a period of assessment shall be deemed to be the same proportion of the output for the financial year or period which covers the period of assessment, which the period of assessment is of that financial year or period.

(ii.) The Minister shall, when delivering to the controlled owner notice of the amount at which the Minister is prepared to agree the net profits for any period of assessment to which this Rule applies, state the sum which the Minister has decided shall be added under this Rule to the standard amount of profits.

If the controlled owner, when serving on the Minister notice of objection to the amount at which the Minister is prepared to agree such net profits, shall also serve notice that he objects to the sum which the Minister has decided is to be added under this Rule to the standard amount of profits, the Referee, in determining the net profits for the said period of assessment, shall have the like power to that conferred upon the Minister by this Rule and the sum (if any) added by the Referee to any standard amount of profits under this Rule may be greater or less than the sum which the Minister decided was to be added thereto.

11. As soon as may be after the receipt by the Minister of the accounts and particulars referred to in Rule 8 and such other accounts and particulars as the

Minister may have required, or where any controlled owner has failed to supply the Minister with the same or any of them within the time appointed, then so soon as may be thereafter the Minister shall deliver to the controlled owner notice of the amount at which the Minister is prepared to agree the net profits for the period of assessment, and unless within fourteen days thereafter the controlled owner shall serve upon the Minister notice of objection, the said amount shall be deemed to have been agreed and to be the net profits for such period of assessment. If objection shall be so served and the Minister and the controlled owner are unable to settle such net profits by agreement, the matter shall be remitted by the Minister to the Referee for determination.

The amount which the Referee shall thereupon determine shall be deemed to be the net profits for such period of assessment, whether the amount so determined be greater or less than the amount which the Minister was prepared to agree as aforesaid.

12. In ascertaining or determining net profits for the final period of assessment proper adjustments may be made in respect of the whole period of control in regard to any matters referred to in Rule 9, so far as it may then be shown that sufficient adjustments have not been made in regard thereto in ascertaining or determining net profits for any previous period or periods of assessment.

13. (i.) Any excess of the net profits of any Controlled Establishment for any period of assessment over the amount thereof divisible under the Act so ascertained or determined in accordance with the Act and these Rules shall be paid to the Minister for the credit of the Exchequer by the controlled owner within fourteen days after the amount of such excess had been ascertained or determined, or in any special circumstances within such extended time as the Minister may allow, and the Minister may make such allowance on such terms as he shall in each case think proper.

(ii.) If, in the opinion of the Minister, a substantial sum will be payable to the Minister for the credit of the Exchequer as the excess of the net profits of any Controlled Establishment for any period of assessment, then notwithstanding that the amount of such net profits has not been ascertained or determined the Minister may, after the expiration of the period fixed by Rule 8 for the delivery of accounts, require provisional payment to be made to him for the credit of the Exchequer on account of such excess in such manner as he shall direct, and payment shall be made by the controlled owner accordingly.

(iii.) If on making any such adjustments as are provided for by Rule 12, it shall be shown that a controlled owner has paid to the Minister for the credit of the Exchequer more than having regard to such adjustments he should have paid, the Minister shall, on the application of the controlled owner, refund to him the amount so overpaid.

GENERAL.

14. (i.) All balance sheets, accounts and statements relating to any Controlled Establishment shall be subject to examination by an accountant nominated by the Minister, and the controlled owner shall at all reasonable times afford to such accountant proper facilities for inspecting all books, documents and records relating to the Controlled Establishment or any other establishment belonging or partly belonging to the controlled owner, which may be necessary to enable such accountant properly to examine and check any such balance sheets, accounts or statements, and shall afford to any other person nominated by the Minister access to and proper facilities for inspecting any plant, stock and other assets of any such establishment and any documents and sources of information which may be necessary for the performance of his duties, and the controlled owner shall give to or procure for the said accountant all accounts and information, and for any such other person all information which may be necessary for such purposes. The controlled owner shall at all times furnish to the Minister or to the Referee all such documents and information as they may respectively require with regard to the Controlled Establishment or any other establishment belonging to the controlled owner.

(ii.) If any question shall arise as to whether any inspection, extract or information required by any such accountant or such other person under this

Rule is necessary for any such purpose, the matter in difference shall on the application of either party thereto, or may at the instance of the Minister, be referred to and shall be determined by the Referee.

15. Any time limited by these Rules may be extended by the Minister from time to time and that notwithstanding that the time limited has expired.

16. In the event of a Board of Referees being appointed or designated by the Minister under the Act, two members of the Board shall constitute a quorum.

17. The decision of the Referee on any matter referred to him shall be conclusive on the matter for all purposes.

18. Any notice or other document required by these Rules to be served or delivered may be sent through the post properly addressed in a prepaid registered letter, and unless the contrary is proved, shall be deemed to have been served or delivered in the ordinary course of post.

19. Any failure to comply with any provision of these Rules after being required so to do by the Minister shall be an offence under the Act.

20. These Rules shall come into force on the 15th day of September, 1915.

Signed, by order of the Minister of Munitions this 15th day of September, 1915.

H. LLEWELLYN SMITH,

General Secretary to the
Ministry of Munitions.

Ministry of Munitions,
6, Whitehall Gardens, S.W.

APPENDIX III.

(CHAPTER IV, p. 87.)

General Procedure Minute No. 69.

23rd January, 1917.

MUNITIONS WORKS BOARD.

1. The Minister has decided to establish a "Munitions Works Board" for the purpose of approving all proposals for constructional work to be done by or for the Ministry, and of exercising a general supervision over the carrying out of all constructional work which is done for the Ministry.

2. In dealing with such proposals the Board will give special attention to finance, choice of site, design, materials, labour supply, and "priority" between the various proposals made.

3. The Board will consist of the following Members:—

Mr. F. Palmer, C.I.E. (representing the Finance Department of the Ministry), *Chairman*.

Mr. James Carmichael, *Vice-Chairman*.

Mr. Seager Berry.

Mr. G. W. Humphreys.

Mr. Ernest Newton.

*Mr. W. J. Larke, representing the Labour Supply Department of the Ministry.

*Sir Howard Frank, Director-General of the Lands Department (War Office and Ministry of Munitions), who will also represent the Board of Agriculture.

*Mr. Frank Baines, M.V.O., principal Architect of H.M. Office of Works.

*Those members marked thus will be required to attend only when their Departments are concerned or at the request of the Chairman.

Mr. A. P. Oppé will act as Secretary to the Board.

4. All Departments and Branches of the Ministry concerned with Construction will arrange to assist the Board by appointing representatives to attend its meetings, when requested, in order to advise upon matters on which they have special experience.

5. In considering questions of "priority" the Board will take advice not only from the Supply Departments making the proposal, but from the Priority Branch and from D.M.R.S. When necessary, reference will be made to the Minister.

6. When the proposals of a Department are before the Board, a representative of that Department will be invited to attend.

7. (a) It is intended that a reference to the Board shall be sufficient for the purpose of obtaining the necessary financial consent to a proposal, of making any necessary arrangement with the Controlled Establishments Division, and of consulting the Labour Supply Department, the Lands Department, the Board of Agriculture, and, if possible, the Treasury (where Treasury consent is needed).

(b) Direct reference to the Board of Agriculture, as laid down in General Procedure Minute No. 62, need no longer be made.

(c) With regard to the Lands Department *see* General Procedure Minute No. 70.

8. Accordingly all Departments and Branches will note:—

(a) That particulars of all constructional work whether—

(1) proposed to be undertaken by Departments of the Ministry, for the Ministry direct; or

- (2) to be paid for in whole or in part out of moneys advanced by, or on behalf of, the Ministry ; or
- (3) allowed to be paid for in whole or in part out of the Excess Profits of Controlled Establishments, should be submitted by the Departments to the Board for approval.

(b) That at stated periods thereafter full information of unit costs, costs compared to estimate, labour conditions, progress of work, &c., should be forwarded to the Board by the various Departments, firms and establishments carrying out constructional work of the character defined in (a).

9. For the purpose of this minute " Constructional Work " will include the provision of machinery, plant and tools.

10. The responsibility for carrying out the work as approved will remain with the Heads of the different Departments and Branches now charged with the conduct of such work.

11. When the work is to be carried out by H.M. Office of Works the necessary instruction to that Office will be issued by the Department concerned after the Board have passed the proposal.

12. The Board will consult the Department concerned and lay down general regulations with regard to the repair and maintenance of factories and buildings belonging to the Ministry, the responsibility for the execution of which will rest with the Department.

13. With regard to the limits within which Heads of Departments will have discretion to act in cases of extreme urgency, and of minor extensions, as well as of repairs and maintenance, the Board will consult the Departments and make recommendations to the Minister, as also with regard to the extent to which approved estimates can be exceeded without a fresh reference to the Board.

14. The Board will consult the Departments and exercise their discretion upon such matters as the employment of direct labour and the " time and lime " basis.

15. Working under the Board there will be a special body dealing with " Assisted Works," whose duties will be the co-ordination, checking of costs, and full supervision of all schemes in respect of which the Ministry has at any time made or may make advances of moneys or writing off allowances to, or other monetary arrangements with, Contractors or Controlled Owners in relation to any extensions of their Works, such as allowances to Controlled Owners by way of grant or writings off, more particularly under Rule 9 (a), (b) and (c) of the Munitions (Limitation of Profits) Rules, 1915.

16. To the Assisted Works Branch will also be referred all cases where other Government Departments apply to the Ministry to assist them in connection with schemes of the above nature.

17. The Assisted Works Branch will report to the Board in the manner provided in Clause 8 (a) and (b) above, and will be responsible directly to the Chairman of the Board.

(See also General Procedure Minutes Nos. 70 and 85.)

112

CONTENTS OF VOLUME III.

Part I.—Financial Administration.

Part II.—Contracts.

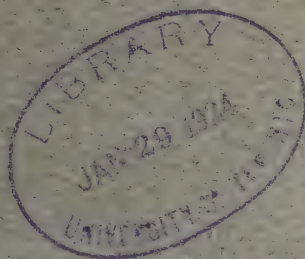
Part III.—Financing of Production.

NOTE.—The present issue is subject to revision and must
be regarded as provisional.

CONFIDENTIAL.
For Official Information only.

193.
Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS



VOLUME IV

THE SUPPLY AND CONTROL OF LABOUR

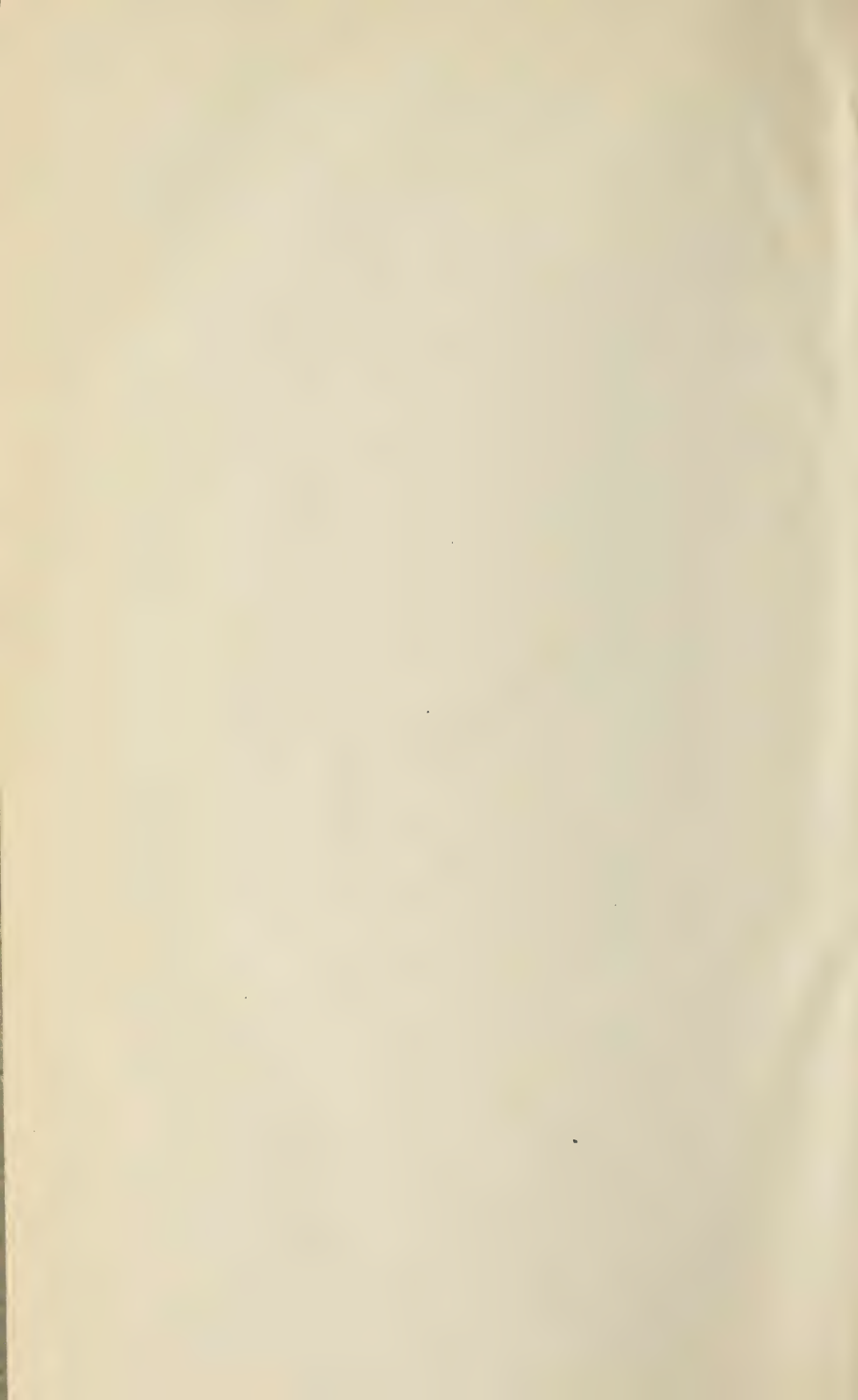
1915-1916

PART I

LABOUR SUPPLY

JULY-DECEMBER, 1915

193.



VOLUME IV.

THE SUPPLY AND CONTROL OF LABOUR,
1915 TO 1916.

PART I.

LABOUR SUPPLY,
JULY TO DECEMBER, 1915.

CONTENTS.

CHAPTER I.

War Munion Volunteers.

	PAGE
1. The Problem of Labour Supply	1
2. The Origin of the War Munion Volunteer Scheme ..	2
3. The Enrolment of the War Munion Volunteers	5
4. Adjudication on Employers' Protests	7
5. The Demand for Labour.. "	11
6. The Allocation of War Munion Volunteers	13
7. The Results of the W.M.V. Scheme. July to September, 1915	14

CHAPTER II.

Release from the Colours.

1. Lord Kitchener's Scheme	17
2. The First Bulk Scheme. June to September, 1915 ..	18
3. Individual Release	20
4. Releases from Barred Units	22
5. The Negotiations for the Second Bulk Release Scheme. August to September, 1915.. .. .	23
6. The Census of Skilled Munion Workers serving in the Forces at Home	28

CHAPTER III.

The Beginnings of Dilution.

	PAGE
1. The Root of the Opposition to Dilution	31
2. The Action of the Machine Tool Committee, August, 1915..	32
3. Conferences on Dilution with the National Advisory Committee	33
4. Local Opposition to Dilution	36
5. Mr. Lloyd George's Speech at the Trades Union Congress, 9 September, 1915	37
6. New Scheme of Labour Supply proposed involving Industrial Compulsion	42
7. Conference between the Ministry and the National Advisory Committee on Dilution and Industrial Compulsion ..	45
8. The Conference of Trade Union Executives on Dilution, 16-17 September, 1915	48

CHAPTER IV.

The Central Munitions Labour Supply Committee and Dilution.

1. The Composition and Functions of the Committee	51
2. Circular C.E.1. The Policy of Dilution	53
3. The Constitution and Functions of Local Labour Advisory Boards	54
4. Circulars L.2 and L.3	55
5. Procedure for effecting Dilution	64
6. The Agreement with the A.S.E. 27 October, 1915 ..	68
7. The Organization of the Dilution Department	69
8. Further Proposals concerning Women's Wages	70
9. Trade Union Amendments to the Munitions of War Act ..	75
10. The Munitions of War (Amendment) Bill	79
11. The A.S.E. Deputation to the Prime Minister, 31 December, 1915	83
12. The Transfer of Wages Questions from the Committee to the Arbitration Tribunals. 10 March, 1916	88

CONTENTS

v

APPENDICES.

	PAGE
I. Form of Enrolment. W.M.V.1	95
II. Form of Enrolment R.C.1	97
III. Circular C.E.1	99
IV. Circular L.2	103
V. Circular L.3	106
VI. Circular L.6	108

INDEX.

Index	111
---------------	-----

CHAPTER I.

WAR MUNITION VOLUNTEERS.

I. The Problem of Labour Supply.

At midsummer, 1915, the cardinal fact for the Labour Department of the Ministry of Munitions was the acute shortage of skilled labour. Of the million and a half males employed at the outbreak of war in the metal and chemical industries essential for the production of munitions and armaments nearly one-fifth had joined H.M. Forces as reservists or recruits. Indeed in those very industries voluntary enlistment had been most active. Although these losses were to some extent compensated by the attraction of new hands, the skilled men could not be replaced. But mechanical skill was never more needed. The manufacture and erection of new machinery, the adaptation of old, the making of tools, jigs and gauges, and the setting up of complex automatics, in order to ensure the precision required of all munitions of war, called in the first year of the Ministry for ingenuity, experience, high accuracy, in a word skill, with an urgency without parallel either before or since.

The most hopeful method of meeting this demand, as Sir H. Llewellyn Smith wrote¹ on 9 June, lay in the relaxation of such Trade Union rules, customs and practices as prevented the economical reorganisation of the workshop, the concentration of the skilled man on work which he alone could perform, and the devolution of all else on other labour, male or female, according to its ability. By the Treasury Agreement of 19 March, 1915, the Trade Union leaders had agreed to recommend the relaxation of such restrictions to their members. But little had been effected. The rank and file were not convinced that the needs of the country could not be met in other ways less threatening to the citadel of their craft. They suspected, not without some justification, that if they once surrendered their rules and customs these could never be restored. Their motive was not mere selfishness but the honest fear that the intrusion of large numbers of unskilled operatives would ultimately cause wide-spread unemployment and a general debasement of the standard of living. They accordingly pressed for the recall from the Colours of the skilled men who had joined the Forces and for the transfer from commercial to Government work of those who had not enlisted. These men (they believed) reinforced by Belgian refugees and workmen from Canada and the other Dominions would satisfy the national demand without imperilling the birthright they had inherited as Trade Unionists and skilled mechanics.

The Government consented to try the policy urged by the Trade Unions first, holding Dilution in reserve and, if that should not be accepted, Industrial Conscription. In the following narrative an attempt will be made to show why the efforts of the Ministry to transfer

¹ M.W. 4591/2.

skilled men from commercial to munitions work and to obtain their release from the Colours failed to provide the labour required, and how this failure resulted in the co-operation of the Trade Unions in formulating the policy of Dilution and at the same time safeguarding the position of the skilled man.

II. The Origin of the War Munition Volunteer Scheme.

On 8 June, 1915, Mr. Lloyd George met the National Advisory Committee¹ and laid before them the grave and menacing situation which confronted the British Army in Flanders owing to the shortage of munitions, especially shells and fuzes. He urged the necessity of bringing home to the skilled and organised workmen not only the extreme gravity and danger of the moment but also the supreme urgency for action. The entire organising capacity of the Nation must in some way or other be concentrated on supplying the deficiency with all possible speed. If voluntary effort should fail, compulsion was inevitable. It was therefore decided that the Minister should summon representatives of the Trades which had taken part in the Treasury Conference in March in order to arrange such a re-organisation of labour as would ensure the maximum output of munitions of war.²

The National Advisory Committee devoted the following day to the preparation of a scheme. They asked that the voluntary transfer of workmen from one shop or locality to another should be given a full trial before resorting to compulsion in any form, since that would be so disturbing as to defeat the end in view. Their proposal was a national expansion of the King's Squad, the members of which volunteered to go wherever they were required for three months, provided that their rate of wages was maintained and they received travelling or subsistence allowances, if they were moved away from their homes. This experiment had achieved no small success.³ Launched on 15 May by the North-East Coast Armaments Committee, the King's Squad numbered over 5,200 men, of whom more than 1,300 had already been accepted by the employers to whom they were offered for transfer. Moreover the cost of moving the men from commercial to Government work did not exceed 1s. 8d. a man, while the weekly allowances paid for lodging money, travelling time and daily fares averaged no more than 7s. 1d. If the rest of the country should respond as readily to the call for Volunteers (and no industrial area was more heavily engaged on armament work than the North East Coast), Mr. Lloyd George would have a great army of skilled men, ready to go anywhere, at his command.

¹ A Committee, representative of the organised workers engaged in production for Government requirements, appointed by the Government to facilitate the carrying out of the Treasury Agreement and for consultation by the Government or by the workmen concerned. See Vol. I., Part II., Chap. IV.

² A full account of the steps by which this scheme was evolved out of the King's Squad raised by the North East Coast Armaments Committee, and of the negotiations between the Minister and the Trade Unions by which it was adopted as an alternative to Industrial Conscription, will be found in Vol. I., Part IV., Sections V. and VI.

³ See Vol. I., Part III., Chap. III., Sect. III., and Appendix XIV., for the history of the King's Squad.

The National Advisory Committee therefore proposed an extension of this scheme throughout the Country. Only skilled workmen in employment, but not engaged on Government work, should be invited to enrol. The Volunteers should be transferred to firms under the control of the Government whose profits were restricted. When transferred they should receive the same subsistence and travelling allowances under the same conditions as the Government had approved for the members of the King's Squad. Representatives of the Trade Unions should report to the Local Munitions Committee on the fitness of the workmen for the work required; and this Committee would select for transfer and allocate the Volunteers, deciding their rates of wages and allowances and dealing with those who failed to observe the conditions of enrolment. Seven days should be allowed after the invitation to enrol in order to give the workmen an opportunity of averting Industrial Conscription.

Mr. Lloyd George accepted this scheme in principle at his conferences with the Trade Unions on 10 and 16 June. At the second conference, after giving a brief summary of the main provisions of the Munitions of War Bill, he said¹ :—

“ Now I will come at once to the point which we want you to undertake, and that is the enrolling of a body of volunteers who will undertake to proceed at once, upon a trade union requisition², to any works where their services are required, for the purpose of expediting or increasing the output of war material. It is proposed that you should undertake the enrolling of these volunteers. They need not necessarily all be trade unionists. If there are men who are not trade unionists who would like to join the Army which you enrol, very well—you had better take them on. But the requisition will be served through you. If either the employer or the workman refuses to carry out his contract, proceedings will be taken by the Government, because we do not want to put the local trade union secretary in an invidious position of having to take proceedings either against the employer or against the workman who has undertaken during the next six months to go anywhere he is required for Government work and fails to do so for one reason or another.

“ Now will you kindly look at the undertaking which each volunteer will sign, because I want this undertaking at once. We propose to place at your disposal the whole of the machinery

¹ HIST. REC./R/300/5.

² The original scheme threw upon the Trade Unions the responsibility of finding the men required by the Ministry, *e.g.*, 75 millwrights to set up machinery at the Birmingham Small Arms Factory (to quote an example given by Mr. Lloyd George). If this plan had been carried out, the Ministry's duty would have been limited to formulating demands, compelling if necessary recalcitrant employers to let their men go, and taking precautions against the withdrawal of men from munitions work or other urgent work of national importance. This last duty would of course have involved considerable complexities and difficulties of administration.

of the Government to assist you in enrolling your volunteers. If you would prefer doing it yourselves that is a matter for you ; but we were asked to assist you in order to save time in sending out circulars, doing the printing, and all that class of work. You have a copy before you of the Schedule, as it is called. There is the name of the Volunteer, his address, his occupation, his trade society and branch, his present employer and place of employment, the nature of the work in which he is engaged and the wages which he is getting. Wherever he goes he will go under Trade Union regulations, Trade Union wages, and Trade Union conditions, but we want to know what wages he is earning at the present moment. This is the undertaking he gives :—

“ ‘ In accordance with arrangements which have been made with the Minister of Munitions by the National Advisory Committee, acting on behalf of the Trade Unions, I undertake with the Minister of Munitions to accept employment on making munitions of war in such controlled establishments as may be named by him, and to remain in such employment during the war for so long as required (not exceeding six months in all) subject to the conditions set out on this form.’ ”

Mr. Lloyd George then went through the conditions¹ :—

- “ 1. The rate of wages paid will be that of the district to which the workman is transferred, provided that if in any case the workman proves that this is less than the rate he was receiving before enrolment, he shall be entitled to receive such higher rate.
- “ 2. The workman will receive over and above his wages the following allowances :—
 - (a) If brought from a distance beyond that which he can reasonably travel daily, railway fare at the commencement and completion of the work for which transferred ; and, where necessary, subsistence allowance at the rate of 2s. 6d. per day for seven days per week. It is clearly understood that the subsistence allowance is not intended to enable any workman to make a pecuniary profit.
 - (b) If within daily travelling distance (exceeding half an hour each way) the value of workman's tickets and one hour's travelling time per day at the rate of time and a half.
 - (c) If within daily travelling distance (not exceeding half an hour) the cost of workman's tickets.

Subsistence and travelling allowances will be paid by the firm employing the workman, with the wages.

¹ The conditions are here reproduced in their final form, and differ in several details from what Mr. Lloyd George said. The main difference was the restriction of subsistence allowance (paragraph 2 (a)) to a man who “ required to keep up two homes.” Exception was taken to this condition by the Conference on the motion of the North East Coast representatives. Otherwise the scheme was accepted without criticism. See Appendix I, *Form of Enrolment*.

- “ 3. The workman may volunteer for a further period of employment after the completion of the period for which he is required in the first instance.
- “ 4. Any workman transferred from employment under this undertaking shall, if found suitable, be guaranteed employment during the war for a period not exceeding six months.

I agree that any breach of this undertaking may be dealt with by a Munitions Court, consisting of a Chairman appointed by the Minister of Munitions, with Assessors equally representing employers and workmen, which may, if it thinks fit, impose a fine not exceeding £3.”

Later, in the course of discussion, Mr. Lloyd George said of the scheme :—

“ This is purely an attempt to avoid compulsion. It is an experiment. . . . which, if it fails, will bring us face to face with compulsion. I think it would be a very good thing if the workmen knew that. I think it would help to bring them in as volunteers. I should have thought it was a very desirable thing to let them know that this is a step to avoid compulsion. (Hear, hear). If we cannot get workmen either because employers are using the means suggested by Mr. Hebron¹—and I am sorry to say I have some evidence of that kind—or for other reasons, then there is only one way of doing it, and that is by laying it down as a principle that every man during the War must render the service the State thinks he can render. But we will try this experiment first.”

The representatives of the Trade Unions approved the scheme outlined by the Minister and agreed that he should arrange in co-operation with the Trade Unions to set up Munitions Work Bureaux for the enrolment of skilled men not employed on Government work and belonging to the trades essential for the production of munitions.

III. The Enrolment of the War Munion Volunteers.

To organise the work of enrolment, Mr. C. F. Rey, General Manager of Labour Exchanges, was appointed on 18 June an officer of the Ministry of Munitions, and at the same time retained his post at the Board of Trade. The title first suggested for him was Director of Industrial Recruiting²; but on 21 June it was settled that he should be known as the Director of Munion Workers' Enrolment; about the middle of July his title was again altered to that of Director of Labour Supply. These changes of title reflect the transition in the Ministry's policy from a military organisation of mobile companies of munion workers to a comprehensive scheme for the supply of

¹ *i.e.*, dismissing men who enrolled and informing men who wished to enrol that they were engaged on Government work when they were not so engaged.

² M.W. 6777.

labour, including dilution and training as well as transfer and release from the Colours. And the dual position held by Mr. Rey facilitated the co-ordination of the Labour department of the Ministry with the Labour Exchanges, which alone possessed the local and technical knowledge necessary for the work which the Ministry was called upon to undertake.

The Trade Unions, however, were apprehensive lest an open association of the Labour Exchanges with the work of enrolment should prejudice the success of their scheme. The skilled men, it was thought, in many parts of the country would refuse to attend the Exchanges, which were connected in their minds with unemployment and unskilled labour. Indeed the scheme, as proposed by the National Advisory Committee and adopted by Mr. Lloyd George, left the responsibility both for enrolment and for transfer to the Trade Unions. But it was soon recognised that they had neither the staff nor the administrative machinery necessary to carry through work which required experience of registration and an established routine to ensure accuracy and uniformity.

Accordingly, the Mayors and Provosts of the principal cities and towns were invited to allow the opening of Munitions Work Bureaux in their Town Halls, the Managers of the Labour Exchanges were instructed to make the necessary arrangements for the registration of those who offered to enrol, and the National Advisory Committee undertook to secure that the local trade union officials should canvass those of their members who were not employed on Government work and attend at the Bureaux to advise on their qualifications. Where no municipal offices were available it was arranged that applications should be received at the Labour Exchanges, which for that purpose would remain open from 6 to 9 in the evening as Munitions Work Bureaux.¹

On 24 June, enrolment began. Munitions Work Bureaux were opened at 200 Town Halls and 200 Labour Exchanges. On the night before Mr. Lloyd George had introduced the Munitions of War Bill, and repeated that compulsion would be inevitable unless an adequate supply of labour for the turning out of munitions were obtained. His warning was reinforced by a wide and costly campaign of advertisement in the Press and by posters and handbills.² At the same time members of the National Advisory Committee and other trade union leaders addressed meetings in various parts of the country explaining the details of the scheme, assuring the workmen that due regard would be paid to their interests and convenience, and appealing to them to show the same devotion and loyalty as their fellows were showing in the trenches of Flanders.

The period for enrolment was extended beyond the seven days at first contemplated, to 4 July, and again to 10 July, when about 91,000 men had enrolled. After 10 July the Bureaux were closed and adver-

¹ L.E. 16325.

² The total cost of advertising was £30,094 12s. 1d. *Weekly Report*, 14 Oct., 1914.

tisement was discontinued ; but enrolment still went on at the Labour Exchanges, some 11,000 men enrolling there in the course of the next two months. The final classification was as follows :—

Platers, Riveters	Drillers, Shipwrights	..	..	23,564
Toolmakers, Toolroom	Workers and Gauge Makers	..	..	1,834
Toolsetters	..	..	..	193
Millwrights	..	..	..	1,727
Turners	..	..	..	7,971
Fitters	..	..	..	24,830
Capstan and Turret	Lathe Operators	..	..	830
Skilled Metal Machinists	..	..	..	6,710
Other Metal Machinists	..	..	..	1,884
Workers in Brass and Other Metals	..	..	..	4,667
Lead Burners	..	..	..	256
Coppersmiths	..	..	..	395
Miscellaneous, Unanalysed	..	..	..	27,166
				<hr/> 102,027 <hr/>

IV. Adjudication on Employers' Protests.

The enrolment figures looked promising ; but it soon became apparent that a large proportion of the Volunteers could not be transferred. When a Volunteer enrolled a form was sent to his employer, in order to afford an opportunity of stating the reason why the man should not be transferred to other employment. Three days were allowed for returning this form to the Bureaux. The enrolment form along with any protest sent in was then despatched to the Munition Workers' Enrolment Department of the Ministry, except from the districts covered by the North East Coast and the Glasgow and West of Scotland Armaments Committees, which were entrusted with the duty of investigating the protests and transferring the men enrolled in those parts ; for they were at that time the only local organisations with the staff and experience necessary for such work.

The officer in charge of the Bureau was instructed to forward along with the employer's protest his observations concerning the reasonableness and accuracy of the statements made.¹ It was hoped that this information, after consultation if necessary with the Department of Munitions Supply, would render a decision possible on the transfer of the Volunteer. But it was recognised that in many cases an inspector's report would be required. The Home Secretary therefore was asked on 25 June whether the Factory Inspectors could be placed at the disposal of the Ministry for this purpose. This request was granted. On 3 July, after the areas to be covered by the Home Office Inspectors had been settled, instructions² were sent to the Divisional Officers of Labour Exchanges asking them to select inspectors to cover the rest of the country. Requests for investigation should be treated as urgent, and the report should be forwarded within three days of receiving the request. A month later the Labour Officers of the Ministry were appointed, but they took little part in this work of enquiry.

¹ M.W. 11532.

² C.O. Circ. 1893.

When the enrolment forms reached the Ministry, they were given out to a private firm to be indexed on cards. But when this index was tested it proved so inaccurate, that it was necessary to do the work again. No action could be taken on the protests until the Volunteers had been classified under firms and under trades. This preliminary task was not completed until 21 July.¹

In the meantime a Committee had been appointed to advise on the transfer of Munition Volunteers.² This Committee of Advisers (as it was first called) consisted of a number of business men of varied experience and high standing, who had offered their services to the Ministry. It was appointed primarily to act as a buffer between the Labour Department and the opposition which was anticipated in Parliament and elsewhere as soon as the transfer of Munition Volunteers should be attempted on a large scale. The Committee was intended to lay down the principles on which the adjudication of protests should proceed, the application of these principles being left to officers of the Ministry called Assessors. But this plan did not work. Protests were made in respect of 66,000 of the Volunteers; and many of these involved special and complex questions which could not be decided by reference to precedents or general instructions.

The Committee resolved on 20 July "that, having regard to the urgent necessity for munition workers, the Committee is of opinion that all Munition Volunteers not employed on work directly essential to the successful prosecution of the War should be regarded as available for transfer, subject only to the desirability of avoiding the actual closing of factories engaged in producing articles of national necessity; that in accordance with the above resolution individual members of the Committee should be asked to advise on particular groups of cases."³

It was recognized by the Ministry that the drastic action proposed would cause strong protest, but on 27 July Dr. Addison assented to it. Accordingly each member of the Committee undertook to adjudicate on the class of cases with which he was specially conversant, Mr. Alexander Duckham acting as Chief Adjudicator and as Chairman of the Committee when common action was necessary. Mr. Stephenson Kent assisted by Mr. Dugdale dealt with Mines, Quarries, Shipbuilding and Marine Engineering, Sir G. Croydon Marks and Mr. A. McD. Duckham with General Engineering, Sir E. de la Rue with the Motor Trade, Mr. W. H. Cowan with the Iron and Steel Trades, Mr. T. R. Johnson with the Railways, Mr. A. Illingworth with the Textile Trades including the manufacture of textile machinery, Mr. A. H. Goldfinch with the Clothing Trades, Mr. R. Burbidge with the manufacture of food and tobacco, Sir G. Younger with Breweries and Distilleries, Mr. A. Lupton with the Paper and Printing Trades, Mr. Thornton Smith with the Timber Trade, Mr. C. Walsh, K.C., with the Public Utility Services, and Sir John Aird with Builders and Contractors.

¹ HIST. REC./H/326.

² M.W. 41279.

³ M.W. 24621.

Adjudication proved slower and more difficult than had been anticipated.¹ The information required on the original form of protest was inadequate for making a decision ; it was therefore necessary to draft a more elaborate form and await its return. More than 7,000 cases were sent for inspection before 20 July and many more later ; delay and hurried enquiry necessarily followed. The instructions to inspectors were not at first² precise enough, but in August³ they were asked to state the firm's direct and indirect contracts for the War Departments ; to see the order books and if necessary verify the work in the shops ; to report on the nature of the work done by the men who had volunteered and what proportion of their time was engaged on munitions or export work. How many men were employed of the same grade as the Volunteers in question ? Were they on overtime or short time ? How far could the employer dispense with the Volunteers by giving up private work, by substituting unskilled men for skilled, by working overtime or in any other way ? Would their transfer involve the dismissal of other employees, and if so, how many ? Would it involve the shutting down of any department ?

A sound decision presupposed accurate information on all these points. But time, experience, technical knowledge and determination were essential for the inspection of an establishment engaged in the execution of numerous orders, many of which might prove none the less important for the prosecution of the War, because they were indirect, while others might not be war work at all. It is therefore not surprising that on 27 August Mr. Alexander Duckham wrote as follows in his weekly report on the progress of adjudication⁴ :—" This work of coming to a final decision is very difficult owing to the fact that it is apparently impossible to secure the necessary type of man for making these enquiries, either because he is lacking in the necessary knowledge or because he is not a sufficiently strong man to stand up to the employer or again because he thinks that he knows the sort of report which is good for us, and does not let us have the sort of report we require. Indeed the inadequacy of the reports is a very serious matter and one which will prove, I think, an insurmountable obstacle to any movement of this kind where it is necessary to investigate the conditions existing at the employers' works before a man is removed either on a voluntary or on a compulsory system." Again on 18 September Mr. Duckham wrote :—" Our experience shows that the only satisfactory way of coming to a decision is to send a really responsible person to the works who will make a selection on the spot and will if possible make it in consultation with, and with the agreement of, the employer, and send with his report a list of the Volunteers that he would recommend for transfer. In this way any serious disturbance of the work in the shop would be avoided, not to mention the subsequent protests which certainly often have much reason in them when they state that special operations have been disturbed. For it is quite impossible for the adjudicators to know exactly the position occupied by the various Volunteers in the system of the firm's work."

¹ M.W. 41279.² C.O. Circ. 1893.³ Form W.M.V. 200A.⁴ Cf. M.W. 39822.

Not only was it difficult to ascertain the facts, but it was hard to decide what importance to attach to various classes of work other than munitions. Exports were clearly necessary to finance the War. Was it right then to transfer men from export work to munitions? The textile and the food trades employed a large number of hands, whose employment depended entirely on a few mechanics; most of their output was required for the Forces, for export, or to meet the needs of the civil population. The motor trade was occupied with big orders for motor transport and aeroplane engines. The Railway shops were engaged on munitions in so far as they were not required for the construction and maintenance of locomotives and rolling stock. Few men could be taken from the mines without risking a serious breakdown of their hauling and pumping machinery. Even if there was at the moment a surplus of labour in the ship-repairing yards, it was necessary to retain it against the contingency of a big naval engagement. In short it was clear that no sweeping transfers were practicable; if men were to be got, they could only be found here and there by patient investigation.

Apart from these difficulties, the time which necessarily elapsed between enrolment and adjudication transformed the conditions under which many of the men had enrolled. In the interval the policy of spreading contracts had been prosecuted with vigour. Patriotism and interest combined to make manufacturers anxious to undertake the contracts which Boards of Management were eager to place. Consequently many Volunteers employed on commercial work in June, were engaged on war work in August. The increasing difficulty of transfer owing to change of circumstances since enrolment is shown by the fact that although by 27 September 8,029 men had been accepted by employers and ordered to move, only 3,768 actually started work. For on receipt of the order to release the man, the employer protested in 4,511 cases on the ground that conditions had altered, and in 4,261 of these cases the protest was sustained as reasonable by the adjudicators who had in the first instance authorized the transfer.¹

Finally many who had enrolled, volunteered in ignorance that they were engaged on work essential for the production of munitions. So much had been said about the shortage of shells and fuses that people were apt to consider nothing else genuine war work. Many, therefore, enrolled who at the time were employed on shell lathes, and other machine tools, machinery and materials, which were the prerequisites of any large increase in the output of guns and ammunition.

Consequently towards the end of August, 1915, the Committee of Adjudicators unanimously passed a resolution that in view of their experience of adjudicating upon and enquiry into disputed cases of enrolment they were of the opinion that the present scheme for transferring skilled labour was impracticable and likely to produce extensive dislocation of trade and possibly labour trouble, without attaining an adequate result in materially increasing the output of munitions of war.¹

¹ C.M.L.S.C. Memorandum 6, by Mr. C. F. Rey.

² Hist. Rec., H/326/1. For subsequent action see Chap. III., Sect. VII.

V. Demand for Labour.

In the meantime efforts had been made to ascertain the extent and intensity of the demand for skilled labour. The National Clearing House Newspaper showed in detail the applications made to the Labour Exchanges which could not be satisfied locally, but afforded no indication of the relative urgency of these demands. It was hoped¹ that information on this question might be obtained from the Contracts Departments of the Admiralty and the War Office and the Supply Departments of the Ministry. Accordingly on 6 July Mr. Rey met representatives of these Departments and proposed that they should supply the Munitions Workers' Enrolment Department (*a*) with a list of firms classified in three groups according to the relative urgency of their products for war purposes, (*b*) with a list of firms from whom it was important that no labour should be withdrawn except men found after special investigation not to be employed on war work.

The Department of Munitions Supply replied on 12 July (*a*) that the demands of all controlled firms engaged on work for the Ministry might be considered urgent, (*b*) that the second proposal would involve much labour and little gain. He could not give the proportion of Government work on which a firm was engaged; even if that were possible, he could not say whether a particular workman was engaged on war work or not. Any attempt to collect information for the Labour Department would involve duplication of effort rather than co-operation. He would pass on complaints or enquiries from the contractors and sub-contractors of the Ministry, and advise which of the two firms should receive preferential treatment.

On 30 July the Secretary to the Admiralty, referring to the conference on 6 July, forwarded to the Ministry without any indication of relative urgency a list of some 450 firms, "whose requirements for labour may always be considered important, if Admiralty work is a ground of application for assistance." Should other firms not on the list specially require labour, the Labour Department would be informed as soon as their demands became known to the Admiralty.²

The failure of this effort to obtain precise and detailed information from the Supply Departments revealed the magnitude of the problem which confronted the Labour Department. Before it could hope to effect an economical distribution of the skilled labour available, knowledge of the actual position of several thousand firms engaged more or less on work of national importance must be built up laboriously by the collation of inspectors' reports with information from the Supply Departments concerning the relative urgency of each class of war material. It was necessary to investigate the equipment and organisation of each workshop in order to discover whether skilled labour was being squandered on machines or by methods of production which were out-of-date and to what extent firms were actually engaged on work of importance for the prosecution of the War. It was essential to correlate the results of those investigations in the light of the

¹ M.W. 42911.

² M.W. 28589.

requirements for war material, for export, and for maintenance, as they varied from time to time in extent and intensity.

But the knowledge essential for real organisation would take many months to build up. In the meantime the Demand Section of the Department had to make the best of the applications which it received. There were the unsatisfied demands recorded in the National Clearing House Newspaper, and many requests for labour came directly from Munitions Committees and from firms. But during the greater part of July it looked as if the Munition Volunteer Scheme would be more likely to fail on the side of demand than on that of supply.¹ Consequently early in July 35 armament firms, which it was proposed to control, were invited by telegram to return their requirements for skilled labour. After some hesitation (for many of them were not eager to employ Munition Volunteers), they sent in a demand for about 11,000 men. On 24 July a circular letter² was sent to some 270 controlled establishments, inviting them to notify the Labour Supply Department of the number of men in each trade whom they could employ immediately on Government work, and explaining the conditions on which Munition Volunteers, Released Soldiers and Canadians might be obtained. After a reminder this circular brought in a demand for 7,064 workmen. On 29 July another circular was sent to 1,000 firms, which, though not controlled, were understood to be engaged on Government work, and this produced a demand for 4,368 men from 272 firms. These demands were indexed, classified and checked to prevent duplication, and to them were added the orders from controlled firms and other firms backed by Government Departments, as they appeared from day to day in the National Clearing House Newspaper.

Attempts were made to ascertain from the officers in the various Supply Departments and from inspectors' reports how urgent the requirements of each firm were. But for some time there was little more to work upon than *obiter dicta* and general presumptions such as the fact of Government control or contracts afforded. Such evidence the Labour Department supplemented³ after 29 July by requiring as a condition of satisfying any demand for Munition Volunteers or Soldiers that the firm should sign a declaration⁴ that it had no men, engaged on private work, suitable to perform the work for which men were asked, that the men sent would be employed solely on munitions, and that on the termination of the work for which they were engaged, the Ministry of Munitions would at once be notified. A month later a further condition was added. A declaration⁵ was required that an application for labour of the kind needed had been made without success to the Labour Exchange. This could be checked by reference to the National Clearing House Register; it also made that Register a more accurate representation of the demand for labour, and prevented the offer of Soldiers or Munition Volunteers where a vacancy could be filled locally.

¹ M.W. 41279

³ M.W. 42728. M.W. 40933.

² M.W. 25905.

⁴ Form S.S.1.

⁵ Form S.S. 1.A.

VI. Allocation of Mmunition Volunteers.

The procedure by which War Mmunition Volunteers were allocated remains to be considered. By the terms of enrolment they could only be transferred to controlled firms, the first list of which was issued on 12 July. By 6 August 345 establishments had been declared controlled, including the armament firms and the principal firms engaged on ships, aircraft, and machine tools. The enrolment forms of the men available for transfer were sent to the Allocation Section of the Department and then distributed according to the place of enrolment to five sub-sections, each in charge of a Labour Exchange officer acquainted with the local conditions of the area which concerned him. These enrolment forms constituted the "Live Register." The demands from the controlled firms were distributed geographically to the officers in charge of the Live Register who endeavoured to satisfy the orders, if possible locally, if not, from the district most like that from which the orders came. Having selected a man apparently suitable, the officer sent a form to the employer showing the man's qualifications and requesting a reply within three days.

If the man was accepted, his present and prospective employers were informed of his transfer and he was told when and where to report and sent a Railway warrant, if necessary. If the man was not accepted, his enrolment form was retained in the Live Register, until it was clear that he could not be placed.

The men, against whose release their employers did not protest, numbered 23,000. But many of them were not highly skilled and for other reasons were the least suitable of all who enrolled. It was necessary, however, to begin with them; and unfortunately the Department, being pressed for results, did not wait for applications, but submitted to important establishments, which it was intended to control, a number of these men who in the opinion of the Department were likely to be required. The bulk of the offers were rejected.¹

Neither the Admiralty Dockyards nor the Royal Torpedo Factory at Greenock were prepared to venture the employment of Mmunition Volunteers with subsistence allowances alongside of other workmen who perhaps had also left their homes to do war work, before the Volunteer scheme was launched, and many private firms took the same line, at any rate for a time, notably Messrs. Vickers. Even if they were ready to run some risk in order to get a first-rate workman, they would not do so for the sake of a man who might prove unsuitable when his paper qualifications were put to the test. No doubt also employers were prejudiced against the subsistence allowance, which had been a stumbling block in their negotiations with the Trade Unions during the early months of the War for an agreement to increase output.² But these fears were not justified by events. Partly through the efforts of the Trade Union officials, and the National Advisory Committee who issued a circular letter on the subject in August, partly because the Volunteer's subsistence allowance was similar to the lodging money,

¹ M.W. 41279.

² See Vol. I., Part II., Chap. II. Sect. II.

customarily paid to outworkers in some trades, very little trouble was in fact caused by the placing of Volunteers among other workmen.

Towards the end of July the Demand and Allocation Sections were united in what was subsequently known as the Supply and Demand (S.D.) Section. At the same time it was decided to transfer to London the Labour Supply functions of the North East Coast and Clyde Armaments Committees.¹

During August the adjudicators dealt with the great bulk of the protests against transfer, and it became clear that the supply of suitable and available Volunteers was quite inadequate to the demand. Moreover there was nothing to guide the allocation officers in deciding which of the many firms demanding labour should have the preference. The consequence was a certain number of maladroit transfers,² which, though probably a very small proportion of the whole, yet afforded an effective target for criticism; and the criticism was the more severe, because it was considered that the allocation would have been better managed if it had been decentralized and entrusted either to the Area Office or to the Munitions Committee. On 31 August therefore, it was decided in effect to scrap the existing register of demands and to start afresh by sending through from the Demand to the Allocation branch only new orders which came through the National Clearing House from controlled firms or such other firms as were backed by special recommendation from a Government Department. Further, save under exceptional circumstances, no new order should be allowed to remain on the register for more than a fortnight. Finally it was proposed to discontinue offering men who had been rejected several times. "We know that in the majority of cases they are not really suitable to the work, and the sooner we cease offering them the better, as it will only lead to the men who are taken on being quickly discharged."

VII. Results of W.M.V. Scheme. July to September, 1915.

Owing to the large proportion of unsuitable men among those to whose transfer their employers offered no protest, and the small number who proved available where protests were made, Mr. Rey reported on 27 September the following figures concerning the scheme at that date.³ Out of 102,000 Munition Volunteers who had enrolled, 37,551 had been submitted to employers, of whom 28,551 had been rejected and 8,581 accepted; but of the latter only 4,529 had actually started work, including 721 placed by the Clyde and North East Coast Armaments Committees. Protests against transfer were made in respect of 66,607 men, of whom 43,354 were adjudicated as not available for transfer, 2,811 as available for transfer only in emergency; 12,745 were passed for transfer in the first instance, but the order was cancelled in 4,261 cases after reconsideration by the adjudicators. There remained 1,698 Volunteers who were at the time under submission to employers, 19,864 who had been relegated to the Dead Register as

¹ M.W. 25224. ² M.W. 36529; M.W. 37952; M.W. 35822; M.W. 39065.

³ C.M.L.S.C. Memorandum 6.

unsuitable, 9,981 who were still retained on the Live Register, and 7,697 whose cases were under consideration, awaiting inspectors' reports or not yet dealt with.

Although the number of men transferred was not large, the amount of correspondence arising out of their transfer was so considerable, that early in August a new Section of the Labour Supply Department was set up to deal with it. The question which caused most trouble was the rate of wages to which the transferred Volunteer was entitled. His contract with the Ministry gave him the right to claim the rate which he was receiving before transfer, if that happened to be higher than the rate of the shop to which he was transferred. But what the difference really was could not in many cases be determined without laborious enquiry.¹ For it required the comparison of piece rates in one shop and time rates in the other, or different piece rates, or weekly rates for differing weekly hours, or weekly rates here and hourly rates there, not to mention war bonus calculated on different principles or no principle at all. Overtime, travelling allowances and compensation for unemployment also involved troublesome questions. Many Volunteers regarded the Ministry as a guardian to whom they might refer every difficulty and grievance for advice and redress. In fact there was hardly a point in all the variety of industrial conditions and practices of this Country on which the Department was not called upon at one time or another to advise or adjudicate.

The reasons why the War Mmunition Volunteer scheme disappointed the high hopes which had been formed of it have already been indicated, but the significance of the experiment perhaps justifies some further reflections. As Adam Smith observed, "A man is of all sorts of luggage the most difficult to be transported." Family ties, local connections and prejudices, differences in manners, mode of living, and dialect, the craftsman's expectations, and conservative habits, all presented obstacles to the free transfer from one part of the country to another of the men whose steadiness, experience and skill were most keenly sought after. In spite of these obstacles 100,000 men pledged themselves to go wherever they were sent. Most of them were skilled mechanics, and enrolled believing that they were engaged on unessential work and would be transferred in a few days to urgent war work. Yet, in the course of three months less than 5,000 of them were moved.

The primary cause of the disparity between the effort and the result was the fact that, whereas enrolment required for success the hustle and excitement of an intensive recruiting campaign, allocation and transfer assumed a knowledge of the individual workman's capacity and function and a sound estimate of the relative importance for the purpose of carrying on the War not only of the industries of the country but of particular factories and even of the several classes of work being done in those factories. The collection of so vast a body of information and its articulation on a reasoned system of priority required the assembly of a large staff of technical experts and many months of assiduous work. Moreover the problem was complicated

¹ See Vol. IV., Part IV., Chap. II.

on the one hand by the rapid expansion of the demand for war material consequent upon the spreading of contracts and the recognition of the necessity for broadening the basis of production, on the other hand by the fact that the drain on the man-power of the country could only be made good by a re-organisation of the workshop, and the introduction of new methods of manufacture and new machinery and plant.

If the Ministry had started with the information and the staff which were collected in the course of the following year, there can be no doubt that a greater proportion of the Volunteers could have been moved ; but on the other hand the need for moving them would have been less pressing, inasmuch as the armament firms would have realised the possibility of meeting their immediate requirements out of their own resources. Even as it was, larger results might perhaps have been obtained, if the Government had from the outset decentralized the work of allocation and transfer by reinforcing the Munitions Committees with a strong official element, and by placing at their disposal the local administrative machinery of the Labour Exchanges. Where so much depended on detailed information about individual workmen and firms, local knowledge, personal investigation and a restricted field were more likely to attain fruitful results than a national system centralized in Whitehall and operating by means of correspondence, reports and forms. But this policy, if it was ever considered seriously, was presumably set aside because it was felt not only that each local committee would jealously retain labour which in the national interest should be transferred to other districts, but that it could not judge the relative importance of the various industries, factories and contracts as well as a central body in immediate touch with the Supply and Contracts departments. It may be doubted, however, whether these considerations were incapable of reconciliation.

Notwithstanding the immediate failure of the scheme, the enrolment of 100,000 Volunteers became a factor of the first importance in the organisation of the supply of skilled labour for the production of munitions. Dispersed as they were throughout the engineering and shipbuilding firms of the country, the fear of their removal afforded a strong inducement to employers to turn over from commercial to Government work as rapidly as possible, and subsequently became the principal lever for enforcing the policy of dilution in accordance with the wishes of the Ministry.

CHAPTER II.

RELEASE FROM THE COLOURS.

I. Lord Kitchener's Scheme.

The principle of releasing from service with the Colours soldiers who were needed for indispensable industrial work had been accepted by the War Office at the beginning of the year. On 22 January, 1915, a circular letter¹ had been sent in accordance with instructions from the Army Council to the Commander-in-Chief of the Army in the Field, and to all Commanding Officers at home, informing them that in view of the urgency of Army contracts for war material, it was necessary to withdraw from the Army certain men whose services were specially required in their former employment. Nominal rolls of these men would be sent to the officers in command of units. "The individual men concerned should be sent for and informed by their Commanding Officer, that, for the good of the Service, it is considered necessary that they should go back to the work which they left to join their unit, and that orders have been received from Lord Kitchener to tell them that their service at the armament works where they were employed and will be employed again, is considered by him as being equal to service with the Army, and that, should it be possible later on in the campaign to utilise abroad against the enemy the military training they have received, Lord Kitchener will then bring them back to the Colours to take part in the war. They will continue to be soldiers, and will wear their uniforms when and where they like."

Releases for munitions work were effected in two ways. An employer might apply for the release to himself of a soldier who had been in his employ before joining the Forces. If the soldier was willing to return to the employer and the application was granted, the release was known as an "individual release." Or a soldier might declare his willingness to go back to his trade, undertaking to work wherever he was sent. If his industrial qualifications appeared satisfactory and were of a kind urgently required for munitions, he might be released to an important firm to meet their demand for labour of that kind. This was known under an inconvenient and somewhat misleading term as "bulk release."

In the Spring of 1915 a considerable number of men were released by the War Office to approved firms. When the Armaments Output Committee was set up, the duty of making recommendations to the

¹ M.W. 23068 Cts/1268/A.G. 1. See also Vol. I., Part II. p. 12.

Adjutant-General for release was devolved upon it; and after the establishment of the Ministry the work was carried on at Armament Buildings until 4 July, 1915.¹ The names of the soldiers were obtained either from the firms' applications for the release of particular men or by the visits of Staff Officers to selected units accompanied by representatives of the firms to examine the men and arrange terms. How many soldiers were released in this way is uncertain; but from a census taken in June, 1916, of all soldiers then employed on munitions work the number of soldiers released before 4 July, 1915, was estimated at 5,025, of whom 4,184 were released in bulk and 841 in answer to direct applications for individual men.

II. First Bulk Scheme. June to September 1915.

But a larger scheme and a more systematic procedure were necessary. On 9 June a circular letter was sent from the Ministry to engineering and shipbuilding firms asking them to give the names, trades, regimental numbers and units of skilled men in their employ who had joined the Forces. On the same day the Adjutant-General sent out a telegram² to the Commanding Officers of certain units calling for returns of skilled men in certain trades who were under their command. Towards the end of the month, Mr. Lloyd George took the matter up with Lord Kitchener and wrote a letter to him on 30 June in order to put on record the arrangements they had made.³ "I understood you to say," he wrote, "that you would be willing that any of such men should be released on the request of the Ministry of Munitions, provided that men in a unit now serving outside the United Kingdom, should, for the present, at any rate, be "barred." I am not sure whether you did not wish to make a saving also in respect of the proportion of men that should be taken from any one unit."

Lord Kitchener replied⁴ on 3 July :

"I am anxious that you should have such skilled men as are urgently required for the manufacture of munitions and who are now serving in the Army. I do not bar any such men whether they are serving at home or abroad, but I am sure we should do well to begin by taking those serving in the units which have not yet completed their training, and that until we have exhausted this source of supply we should leave alone those which are abroad or are standing ready to go abroad. Regular troops other than the above will thus be placed at your disposal to select from as a commencement, together with the whole of the Territorial Force in England, the Special Reserve and the garrisons manning the Coast Defences, a total of well over 1,000,000.

"You are right in suggesting that we must not allow too high a proportion of men to be taken out of any one unit. Should any case arise in which I may find that the fighting

¹ M.W. 24580. See Vol. I., Part III., Chap. V., Sect. 7.

² No. 3461.

³ M.W. 10061.

⁴ M.W. 10061.

efficiency of a unit will suffer considerably by the drain of men for munitions I will let you know and frame rules on the subject. As, however, I do not anticipate such a contingency, I think that we need not now consider how to meet it.

"I am sending copies of this letter to the Chief of the Imperial General Staff and the Adjutant-General and I am sure you can rely upon us all to help you.

"There may be difficulties in getting men to leave active service for munition work, but I have little doubt that the Army will be able greatly to assist in manning the shops producing the material on which they rely."

On 7 July Sir R. H. Brade wrote,¹ in reply to a letter from Sir H. Llewellyn Smith, of 5 July, concurring in his proposal that the Commanding Officer of each battalion at home, not included in the First, Second, or Third Armies or the First Line of the Territorial Force, should be supplied with a list of the names of his men, obtained from the returns asked for by the Ministry of Munitions on 9 June or called for by the Adjutant-General's telegram of the same date, and should be instructed to give facilities for an expert investigator acting on behalf of the Ministry of Munitions, to visit his unit in order to ascertain which of these men would be willing to undertake munitions work as and when requested to do so by the Ministry of Munitions, and to obtain full particulars of the industrial qualifications of the men volunteering. The War Office would instruct Commanding Officers that the men so selected might be released from the Colours.

At the beginning of July Major Scott was appointed to take charge of the Release from the Colours and to organise for that purpose a section as a part of the Labour Supply Department of the Ministry. On 8 July instructions² were issued by Mr. Rey, through the Divisional Officers of Labour Exchanges to the officers in charge of the Munitions Work Bureaux, giving lists of soldiers serving near each Bureau who were *prima facie* suitable for munitions work, and instructing them to arrange with the Commanding Officer of each unit for a visit to enrol those who were willing to return to their trade.

On the enrolment form³ the soldier gave particulars of his industrial history and qualifications and declared that he was prepared to undertake munitions work in any establishment named by the Minister of Munitions for so long as required by him, on condition: (1) that he should report himself to his unit for military duty as soon as he ceased to be so employed; (2) that he should receive the district rate of wages or his Army pay and allowances, whichever was the greater; (3) that if he was unavoidably separated from his family or dependents, separation allowance (less the portion allotted by himself) should be issued to his wife or dependents under the usual conditions, as a clear addition to any other earnings or emoluments.

¹ M.W. 10061. 19/Gen. No./5415/A.G. 1.

² M.W. 17853.

³ Form. R.C. 1. See Appendix II.

Soldiers available for release were handed over to Demands Section for allocation, their enrolment forms being placed alongside of the Live Register of Munition Volunteers. If an approved demand could only be satisfied by the release of a soldier, the particulars were submitted to the employer, and if he accepted the man and signed the necessary declaration¹ the case was transferred to R.C. Section which issued specific instructions for the soldier's release to the Officer Commanding his unit, a general authority to that effect having already been given to him by the Director of Organisation.

The investigations based on the circular letter and telegram of 9 June failed to provide a reservoir of skilled men at all commensurate with the demand. Although more than 50,000 names were sent in, few soldiers were made available for munitions. Many had gone abroad; many more were in "barred" units at home, which contained the flower of the skilled mechanics who had volunteered; others were not skilled; and in a very large number of cases no particulars concerning the units in which the men were serving could be obtained. Moreover, as Mr. Lloyd George told the House of Commons on 20 December, 1915² :—

"We are trying to get men from the Colours, but it is a great rearguard action. It is like getting through barbed wire entanglements without heavy guns. There are entrenchments behind entrenchments. You have not merely the Army, the corps, the division, the brigade, the battalion, and the company, but the platoon, and even the squad—everybody fighting to prevent men from coming away. I am not surprised. I am not blaming them. Skilled men at any trade are skilled men at every trade. Your intelligent skilled man is a good man in the trenches and nobody wants to lose him. Therefore, every corporal fights against parting with a good, intelligent, skilled workman. As my hon. friend points out, the men themselves feel that they are running away from danger in order to go back to comfort and high wages and emoluments, and they do not like it. It is a very creditable story. At last I think we are beginning to get over these difficulties, largely through the pertinacity and tact of Major Scott."

For these reasons up to the end of October only 2,000 men were released in bulk through the Release from the Colours Section and placed on munitions work, the weekly averages being 196 in August, 168 in September, and 94 in October.

III. Individual Release.

A. N.C.O.'S AND MEN.

The policy of releasing individual soldiers to their old employers on direct application for their services was more successful. By the

¹ Form S.S. 1. See p. 12.

² *Parliamentary Debates* (1915), *H. of C.*, LXXVII., 119.

end of October, 3,097 such releases had been effected, the weekly averages being 379 in August, 225 in September and 113 in October. Major Scott considered this form of release preferable, if circumstances justified it. On 29 March, 1916, he wrote¹ as follows: "My experience shows the desirability of placing a soldier with his old employer so far as that may be possible and desirable in accordance with the urgency and extent of the employer's demand. The reasons for my opinion are the following:—

"(1) A soldier who has returned to work with his own employer has been found to be a more efficient workman than a stranger. This naturally follows from the fact that he knows the work and the whole working conditions, and is presumably back again at his own home as well as his old bench.

"(2) Transfers rarely take place in such cases, which shows that both the employer and the employee are satisfied.

"(3) Dismissals are equally rare in these cases and great advantage results.

"(4) Employers who have been paying special allowances to the wives and dependents of previous employees who enlisted create great difficulties when they find that these employees are now working elsewhere.

"(5) There is a saving of public funds in so far as separation allowance paid to the man's wife, etc., if he is separated from home, is greater than family or other allowance which falls to be paid to him if he is living at home."

Applications for the release of individual soldiers were dealt with in the following manner. At first, if a controlled firm applied for a skilled man, and the man's unit was not "barred," R.C. Section prepared a letter directing the Officer Commanding to release him, which was signed and dispatched by the Director of Organisation from the War Office. If the firm was not controlled, the application was referred to Demands Section for recommendation. If an inspection was required, the inspector was instructed² to verify the statements made by the firm concerning their war work on hand. What proportion of their output did this represent? If all the men asked for were released, would the firm be employed solely on war work; and to what extent would their output be increased? Was it important that the firm should get their former employees back, or would other labour of the same grade serve as well? If the application was approved, the release was carried out by R.C. Section in the manner just described.

Towards the end of July all firms, whether controlled or not, were required to sign the declaration³ that they had no men engaged on private work, suitable to perform the work for which they asked that soldiers should be released, and that they would employ the men sent solely on munitions of war. A month later a more elaborate declaration⁴ was required, in which the firm stated in addition that they had

¹ M.W. 63424/21.

² Form V. 1.

³ Form S.S. 1.

⁴ Form R.C. 22.

applied, without success, for men of the class required to the Labour Exchange, and, if controlled, for War Munitions Volunteers also, and undertook that they would not dismiss a released soldier without giving the Ministry of Munitions one week's notice and the reasons for the dismissal. The former condition was required to make good an understanding with the War Office that soldiers would not be called back, until all civilian sources of supply had been exhausted; the latter, in order to give the Ministry an opportunity of placing the man elsewhere and to prevent the arbitrary dismissal of released soldiers, which had occurred on more than one occasion.¹ It was of the first importance that R.C. Section should have a complete record of every released soldier and his movements, so that the War Office might be able to recall him to the Colours or communicate with him at any moment.

B. OFFICERS.

If a private firm applied for the release of an officer, Major Scott first satisfied himself that the officer was willing to return to civil employment, that the Officer Commanding his unit was agreeable to release him, that he possessed special qualifications in connection with the production of munitions and that the firm was engaged on urgent work for which the officer's services were necessary. He then referred the application to the Secretary of State for War with a recommendation that it be granted for a definite period, subject to renewal if the Ministry recommended and the Army Council agreed.

All negotiations with the War Office concerning the employment of officers within the Ministry itself or in connection with the Royal Arsenal, National Factories or other munition works directly organised by the Ministry were managed by the Parliamentary Military Secretary.

IV. Releases from Barred Units.

On 10 August Mr. Lloyd George again wrote² to Lord Kitchener: "In pursuance of arrangements already made to secure the release of men from the Colours for skilled work, we are taking men, in the first instance, as suggested by you, only from the Depôts, Reserves, Fourth and Fifth New Armies, and the Second and Third Lines of the Territorial Force.

"Cases arise, however, in which an employer engaged on urgent Government work asks specially for some particular man who has special qualifications for his work. Very often we find that the man is in one of the units, from which, under present arrangements, we are not able to draw men. To give a single instance: out of 460 names of men specially submitted to us from a number of Sheffield firms, we were able to find only 76 in units from which we could release the men in the ordinary way.

"I do not, of course, suggest that anything like the whole of the rest could or should be released. Some of them, though the employer

¹ Cf. M.W. 30022.

² M.W. 26915.

had asked for them specially, could probably be replaced by other men brought from elsewhere. In such individual cases, however, where we are satisfied both that the work is really urgent and that the soldier asked for has special qualifications, I should like to be in a position to get him back even though he may be in one of the Armies from which we cannot draw men in bulk. I think this would be in accord with the spirit of your last letter to me, which suggests that without actually barring any unit at all, we should work, in the first instance, upon certain units in this country, but should have recourse to the others if this failed.

"I hope, therefore, you may feel able to accede to this suggestion and let us in individual cases, for special reasons, get skilled men back to their previous occupations, even though these men are not in the units upon which we are at present able to operate. I can promise that the power we ask shall only be sparingly used in cases of real urgency."

Lord Kitchener replied on 11 August: "We will do our best to give you the men you require, but I feel that we must be careful in taking the necessary action when they are on active service or when about to go out, as I have heard, on good authority; that many men are trying to evade service in the field by obtaining billets on munitions work.

"I think, therefore, that when a case arises of men who are practically in the firing line being urgently required for munitions work, it should be specially investigated with a view to preventing shirking, for this if once really started, would have a very bad effect on the Army generally.

"I fully realise that your people are only taking men who are really required and useful, but the question of bringing men back from the fighting line is much more difficult to deal with than the cases that have arisen hitherto, and will require careful consideration in each instance.

"If your office will let us know their requirements, we will try to work out a practical solution by a little experimental work before laying down any definite rules."

As a result of this letter, very strong applications for the "individual" release of pivotal men from barred units at home and abroad were from time to time put forward by R.C. Section in the form of recommendations to the War Office.

V. Negotiations for Second Bulk Scheme.

August to September, 1915.

Mr. Lloyd George's letter unfortunately by raising the smaller question in this direct way to some degree embarrassed the extension of the scheme for bulk releases which was imperative if any considerable number of skilled men were to be obtained from the Army. Neverthe-

less, Major Scott decided that his proposals ought not to be delayed, and, therefore, on 18 August he drew up a memorandum explaining the serious defects of the existing scheme and proposing a thorough search for the skilled men who were serving in all units that had not yet gone abroad.

Major Scott pointed out¹ that since he took charge of R.C. Department on 4 July, instructions for the release of 2,210 soldiers had been given in response to direct applications from employers for the services of individual men, but of these only 1,215 had as yet reported for duty. Delay in executing the instructions frequently arose from the omission of the War Office to supply officers in command with copies of their letters² laying down the conditions of release. In other cases the commanding officer failed to carry out the instructions. Again, the fact that units were barred often prevented employers from obtaining the return of pivotal men. The scheme for releases in bulk, based on the circular of 9 June to 8,500 firms, after much time and labour had been spent, had made only 1,387 skilled men available, of whom 857 had been placed. Not more than another 1,200 men could possibly be extracted from the Army under the existing system. Major Scott therefore proposed that a census should now be taken of all the skilled men in the Forces stationed in the United Kingdom, with the exception of those units in which they were employed as artificers. Their qualifications should be examined by skilled investigators, accompanied by officers representing the Ministry. All men selected should be detained in this country at the disposal of the Ministry, unless the Ministry dispensed with their services. For this purpose they might, perhaps, be transferred to the last formed battalion of their regiment.

On 21 August Dr. Addison forwarded Major Scott's description and criticism of the existing procedure to the Adjutant-General, Sir H. C. Sclater. On the same day the Ministry received an official letter³ from the Army Council, saying it was understood that delay had arisen in obtaining the services of soldiers whose release the Council had authorised or were prepared to authorise. They desired to do all they could to help the Ministry, and asked for particulars of avoidable difficulties or delays.

Two days later Sir H. Llewellyn Smith sent a minute⁴ to Dr. Addison, saying that the one condition precedent to any effective move forward was a change in the point of view of the War Office, which would cause them to give the Ministry active help instead of putting discouragements in their way. Whether this change could be effected without a clear mandate from the Government was, perhaps, doubtful, but he had received a private note from Sir R. H. Brade and an official letter which indicated a desire to overcome the difficulties arising out of the present procedure. Given the change of attitude, the Ministry should try to get the War Office to agree to Major Scott's scheme. On the same day Dr. Addison conferred with the Adjutant-General.

¹ R.C. 05787.

² Contracts/1268 (F2) of 22 May and 29 June, 1915.

³ 19/Gen. No./5415. A.G. 1 (R).

⁴ R.C. 05787.

On 24 August Sir H. Llewellyn Smith wrote¹ to General Sclater, enclosing Major Scott's proposed scheme for releases in bulk, and the amendments desired in the system for dealing with individual applications: "I shall be very glad," he added, "to hear from you as soon as possible, whether a scheme on these lines would meet with the approval and active co-operation of the War Office. Its success obviously depends in the main on enlisting the active help of commanding officers by getting them to feel the importance of expediting munitions from the Army's point of view."

On 26 August Sir H. Llewellyn Smith sent a note to Sir R. H. Brade, in which he said: "Every day brings further evidence of the fact that we shall have to rely more and more on the Release from the Colours to obtain the skilled labour that we need. I earnestly hope, therefore, that we shall soon be able to get the new scheme in working order."

On the following day the Ministry received a letter² from the Army Council, referring to the conference between Dr. Addison and the Adjutant-General. It was clear that the information given by contractors to the Ministry in reply to the circular of 9 June was very inaccurate. As a remedy, new measures must be adopted, which would bring the experts of the Ministry into closer touch with those soldiers who claimed to have the qualifications necessary for munitions work. The Council, therefore, proposed that skilled investigators of the Ministry should make a thorough enquiry, visit each unit of the Army serving at home, examine and record the qualifications of the men whom they considered suitable for expert work on the manufacture of munitions. On lists so framed, the Council and the Ministry could concert action for the speedy disposal of the men required. Commanding officers would be instructed to facilitate in every way the work of the investigators. All units serving at home, not actually preparing for dispatch to the front, would in future be available for individual releases.

On 28 August General Sclater acknowledged³ Sir H. Llewellyn Smith's letter of 24 August and the memoranda enclosed. He hoped to arrange a system which would work speedily and in a way satisfactory to the Ministry and the War Office. He promised to do all he could to help. Sir H. Llewellyn Smith replied on 1 September, saying the main point was that any workable scheme must include some effective means whereby the Ministry could readily and certainly lay their hands on any man registered, as and when a demand for his services as a munition worker arose, and call him up for munition work by a simple and direct summons from the Ministry.

On 1 September Dr. Addison again conferred⁴ with the Adjutant-General, who proposed that the War Office should instruct Commanding Officers to prepare from the attestation papers of their men a *bona fide* and complete list of the men experienced in the munition trades. He also suggested that units should be paraded, and all men qualified

¹ R.C. 05787. ² 19/Gen. No./5449 A.G. 1. ³ R.C. 05787. ⁴ R.C. 05787.

for munition work invited to fall out. If adequate lists could not be obtained in either of these ways, any other steps necessary should be taken. A Staff Officer should accompany the officer of the Ministry in visiting units, and see that the procedure was carried out in accordance with the intentions of the Government.

The following day Major Scott wrote a minute¹ with reference to this interview. The Army Council had not criticised his scheme in detail, nor had they stated whether they accepted it or not. There should be no doubt concerning the exceptions, if any, to the principle that all skilled workmen in munition trades in the Army at home should be retained in the United Kingdom and made available for munition work. The Adjutant-General had referred to troops "on the eve of departure" being excepted; and Major Scott gathered that the whole of the 3rd New Army, 150,000 men, fell within that category. "I respectfully suggest," he continued, "that the time has gone past for tinkering with this subject and for amiable expressions lacking in detail, and I would most earnestly press for a written assurance from the War Office that they undertake to retain in this country all skilled munition workers at present in the Army stationed in this country without exception of any kind." Skilled men withdrawn from the 3rd Army could be replaced by unskilled men withdrawn from the 4th Army. Major Scott approved of the suggestion that the men should be paraded by companies and invited to volunteer for munitions work; but he pointed out that statements in the attestation papers concerning occupations were frequently false or inaccurate.

On 3 September an official letter was sent to the Secretary of the War Office.² The Minister concurred in the proposal that skilled investigators should visit each unit. "In order that these visits may result in a really complete record of all qualified men, the Minister considers it essential that by an Army Order or otherwise it should be brought clearly to the notice of officers commanding units and through them to the men themselves, that in view of the extreme need for skilled men in the engineering and shipbuilding trades it is the duty of every such man who has joined the Forces now to offer himself for munitions work It appears to the Minister essential that all units without exception, whether on the ground of approaching departure from the United Kingdom or on any other ground, should be available for investigation. He regards it as of vital importance to prevent any more skilled men from leaving the country, since their recall must be a matter of great difficulty Men recorded and adjudged suitable should be kept available to be sent to munitions work the moment they are required upon a simple order sent from the Ministry of Munitions to the Officer Commanding the unit in which such men may then be serving In taking names in the Artillery and Ordnance Services or mounted corps it will be clearly understood that artificers, employed in their own corps as such, cannot be spared for munitions work, as the efficiency of their units would be destroyed. Individual releases should be allowed, whether units are preparing for despatch or

¹ R.C. 05787.

² R.C. 05787.

not With respect to the suggestion made by the Adjutant-General at the interview on 1 September that the attestation papers of all soldiers should be examined to discover skilled men, the Minister thinks this might be a useful supplementary method of making sure that the skilled men had in fact been discovered, provided this does not involve excessive labour But visits to units should not be delayed on this account."

On 4 September the Ministry received from the Army Council for their concurrence and remarks a letter¹ which it was proposed to issue concerning the new scheme for Releases in Bulk to the Officers in command of all units serving at home with the exception of the 3rd New Army. The letter was neutral and gave no clear lead to Commanding Officers.

The Ministry replied² on 7 September: The Minister considered it essential that the Army Council in their instructions to Commanding and Staff Officers should clearly express the view that in the present crisis it was the duty of every soldier who was a skilled munition worker to offer his services in that capacity. The Minister objected to the exclusion of the 3rd New Army. The Nominal Roll should include all men claiming the necessary skill without reference to their willingness to take up munitions work. Whether they were willing or not would be ascertained by the investigator at the interview. The Minister would be glad to see the Army Council's instructions to Staff Officers. He presumed that all men on the Nominal Rolls would be retained in the United Kingdom and be at the disposal of the Ministry for purpose of release; but he would be glad to have this confirmed.

On the same day the Adjutant-General wrote³ to Sir H. Llewellyn Smith, stating that Lord Kitchener had discussed with Mr. Lloyd George "how the influences which after inspection induce a man to refuse to join the Munitions branch might be best counteracted." The best course would be to transfer the men enrolled to some dépôt where the Ministry of Munitions would keep and pay them, until they were detailed for a special factory.

On 8 September Sir R. Brade informed Sir H. Llewellyn Smith that the War Office was practically in agreement with the points raised in the letter of 7 September, except that they expected the Ministry to hold the men who were to be released. A large part of the 3rd Army had already gone abroad, and the rest was on the point of departure. He had always understood that such units should be left alone, at any rate, at first.

General Sclater wrote on 9 September to Sir H. Llewellyn Smith, assuring him that the War Office was doing its utmost to get the men required by the Ministry. He repeated his previous suggestion about transferring them to dépôts under the control of the Ministry. "We do not feel we can be responsible for, or sufficiently check, those influences in the Army, which are only natural, when you consider

¹ 19/Gen. No./5456. A.G. 1. Releases. ² R.C. 05787. ³ R.C. 05787.

the men are recruited to serve in the field." That portion of the 3rd Army, which was not actually under orders to embark, would be open for inspection.

On 14 September Sir H. Llewellyn Smith replied to General Sclater. The issue of the agreed instructions to Commanding Officers and the initiation of visits need not in any way be delayed by the fact that they had not agreed on a plan for detention after enrolment of the men whom the Ministry could not place at once. He appreciated the advantages likely to result if the selected men were removed from influences which might cause them to go back on their undertaking to serve as munition workers. But he was doubtful if the Ministry could organise a dépôt under their own control at which the men could be detained. The attempt would involve delay and the difficulty of providing the necessary discipline or enforcing military law. If the Army Council could not organise such dépôts, the Ministry must take the risk and let the men remain with their units till they were placed, on the understanding, of course, that such men would be detained in this country and held at the disposal of the Ministry. A certificate signed by Lord Kitchener would go far to helping to keep the men faithful to their agreement to take up munitions work.

Three days later General Sclater informed Sir H. Llewellyn Smith that the instructions to the Commands had been sent out. He had himself written and asked the Generals in each Command to give personal attention to the matter, so as to ensure its being carried out efficiently. He would mention the question of the certificate to Lord Kitchener, who was not, however, inclined to adopt the proposal when last before him.

VI. Census of Skilled Munition Workers serving in Forces at Home.

The instructions were issued from the War Office on 16 September. Commanding Officers were informed¹ that, "in view of the great shortage of skilled labour and the urgent need of increasing the supply of skilled men competent to manufacture munitions of war, it is desired that all such men at present serving with His Majesty's forces in the United Kingdom should, so far as possible, be placed at once at the disposal of the Ministry of Munitions for the purpose of expediting and increasing the supply of munitions." With this object a complete register should be made of all men serving at home, skilled in trades necessary for the production of munitions, who were not in the Royal Flying Corps or employed as artificers in the Cavalry, Yeomanry, Royal Artillery, Royal Engineers, Army Service Corps or Army Ordnance Corps. Accordingly a list of these trades was posted at once in conspicuous places, where it could be read by all the men in each unit, and every man skilled in these trades was ordered to give in his name to the orderly room, where nominal rolls were prepared in triplicate of all names given in with the exceptions mentioned above.

¹ 19/Gen. No./5449 (A.G. 1). Releases.

In the meantime the Divisional Officers of Labour Exchanges had been instructed¹ to select, for the purpose of judging the industrial qualifications of each soldier who offered himself as a skilled workman, responsible Labour Exchange officers, who should be either Managers of some standing or assistant Insurance Officers. They would be accompanied by expert registration clerks, and would organise the arrangements for registration, interview the men and certify their capabilities, setting forward as exactly as possible the work for which each soldier was fitted. The investigator should put himself in the position of a works' foreman interviewing an applicant for a situation, and record on the certificate such facts as would be useful to a foreman in coming to a decision.

At the same time the Ministry of Munitions selected Representatives² (including several of the Adjudicators and sixteen Members of Parliament) to accompany the investigators on their visits. They were instructed to hold a watching brief on behalf of the skilled investigator and to intervene if they detected the slightest attempt to influence the men against offering themselves as munition workers or to hamper the investigator in the discharge of his duties.

The War Office also arranged³ that a senior and experienced Staff Officer should accompany each party on its tour of inspection. "Commanding Officers and the Staff Officers deputed by General Officers commanding should give all the assistance in their power to the representatives of the Minister of Munitions in carrying out their task, and should in every possible way encourage all suitable men to come forward for munition work, explaining to them the importance of expediting and increasing the supply of munitions."

On 23 September the tours of inspection began. A list of the units in the 3rd New Army had been handed to an officer of the Ministry on 22 September, and on the following day the Ministry's representative with four skilled investigators visited Aldershot to inspect them. On reporting to the General Officer in command of the 25th Division, he was informed that the War Office Letter of 16 September had not been received. No arrangements consequently had been made. Some of the 25th Division were entraining that evening for the front; the rest would go in a day or two; no one could possibly be released or detained. General Hamilton Gordon, to whom reference was then made, stated he had received a letter of advice that the representative of the Ministry of Munitions was coming, and had telegraphed to prevent him having a useless journey. He added, that it was impossible, pending instructions, to carry out the direction of the Army Council's letter, that skilled men selected should not be allowed to leave the country, since orders for the whole Division to move had previously been given.

On 24 September, Sir H. Llewellyn Smith sent an official letter⁴ to the War Office recounting these facts, and added: "The Minister regrets it has not been possible to carry out the scheme agreed upon

¹ C.O. Circ., 1984. ² M.W. 43452. ³ 19/Gen. No./5449. ⁴ R.C. 05787.

between the Ministry of Munitions and the War Office, so far as relates to the portion of the 3rd New Army still in the United Kingdom. He proposes shortly to put before the Army Council a scheme for securing the Release from the Colours of skilled munition workers now serving in the Armies in France and Flanders."

Mr. Lloyd George had written¹ on 22 September: "I have already talked over the position with the Prime Minister, and he is insistent that the War Office should help us in every way to get the men back from the Colours."

After this unfortunate beginning, things went better. The whole of the men in each unit were paraded, those on the nominal roll apart from the rest. The Staff Officer explained the conditions under which the men would be released, if required, and invited any suitable men who had not enrolled to come forward in order that their names might be added to the roll. If occasion arose, the Ministry's representative made a speech and emphasised the need of skilled men to make munitions. The investigator then inspected the men enrolled, ascertained by careful enquiry which of them were suitable for the production of munitions, and deleted from the roll those whom he considered unsuitable or who declined to take up munition work. Each man passed as suitable was asked to sign the Form R.C.1, by doing which he undertook to work in any establishment as and when required by the Minister of Munitions. One copy of the roll along with the R.C.1 forms was sent to the Ministry of Munitions; the Staff Officer forwarded the second copy to the War Office; the third copy was retained by the Officer commanding the unit, whose duty it was to see that the men on the roll did not leave their unit or the country, either in drafts or for any other reason, without instructions from the War Office.

About 106,000 men offered themselves under this scheme out of 1,500,000 men paraded and addressed, of whom 40,390 were passed as suitable by the investigators. Half of the selected men were ultimately placed on munitions work. But allocation did not begin until the end of October, and even then for reasons which will be considered later it did not proceed as rapidly as might have been anticipated. Consequently the immediate needs of the Ministry for highly skilled mechanics still remained unsatisfied.

¹ R.C. 05787.

CHAPTER III.

THE BEGINNINGS OF DILUTION.

I. Root of Opposition to Dilution.

If more skilled men could not be obtained for munitions from the Army or from commercial work, the only alternative was to make better use of the men available. The various methods by which this was done are popularly known as dilution. The essential feature of them all was the restriction of the skilled man to work which he alone could do. For the rest, complex processes were split into simple operations, skill in which was soon acquired by specialization; fool-proof and other mechanical devices were introduced by which the unskilled were enabled to do work of high accuracy; the semi-skilled were graded upwards according to their ability, untrained boys and women taking their places at the bottom of the ladder; lines of demarcation were removed so that men in similar trades could do each other's work as required. In effect dilution meant the entire reorganization of the workshop with a view to obtaining an output limited only by the number of skilled men available for skilled work and supervision, and by the quantity of the newest machinery obtainable at home and abroad.

The fundamental obstacle to dilution was the opposition of the craft unions. For many years they had been dominated by the fear of a glut in the market, resulting in unemployment and a fall in the standard of living which they tried to secure for their members. To avoid this they had built up a system of rules and customs, written and unwritten, which hampered production. The limitation of the number of apprentices, the insistence that skilled men only should work certain machines, the restriction of output, the regulation of overtime, the exclusion of women and men who had not been initiated into the mysteries of the craft, the sharp demarcation between the operations proper to the various trades, were all founded on the economic half-truth that demand can only be maintained by limiting supply. The fear of a glut was reinforced by the suspicion that employers would cut prices, or substitute cheap labour, or at the best heap up private profits, if these restrictions were relaxed. But that the chief obstruction to dilution did not consist in such suspicions is evident from the fact that, although the Munitions of War Act guaranteed the limitation of profits and the maintenance of rates of wages, the resistance to dilution continued long and obstinate. The workmen feared for the future of their craft. They feared lest, notwithstanding the pledges to restore all changes after the War, so many workpeople would be introduced

by dilution into the engineering trades, who would either prove their capacity to perform much of the "skilled man's work" or render feasible other methods of production not calling for skill, that the old restrictions and customs could not again be enforced, and consequently, the war demand for unlimited output being gone, the tradesmen of ordinary skill would be thrown out of work or compelled to accept a lower standard of living.

II. Action by Machine Tool Committee.

The policy of dilution was not pressed by the Labour Department until it was clear that neither Munition Volunteers nor Released Soldiers would go far to meet the shortage of skilled labour. In the meantime the first steps were taken by the Supply Department at Armament Buildings, and the responsibility for diluting skilled labour was placed on the Area Engineer, since he alone had the technical knowledge that was required.¹ But the political difficulties soon proved quite as formidable as the technical, and it became evident that little progress could be made without further negotiations with the Trade Unions.

The machine tool trade was the first branch of Engineering before which definite proposals for dilution were put. The order was natural, since the production of new machinery was the first step in the execution of the munitions programme. But it was unfortunate that the campaign should have been opened in a branch of engineering which the Trade Unions regarded as the peculiar preserve of the skilled tradesman, and on an article the manufacture of which was not limited by the duration of the War. Mr. Lloyd George raised² the question of dilution on 15 July at a conference with the machine tool makers, and early in August Mr. Herbert obtained his sanction to urge the employment of female labour in the machine tool trade. The Machine Tool Committee therefore drew up a circular,³ which on 7 August they sent out to the firms engaged in making machine tools. It was imperative (they said) that all machine tool works should arrange night shifts. The employment of women must not only be encouraged but insisted on. The urgency was great, and all traditions and prejudice against their employment must be swept aside. The Trade Unions had agreed to facilitate it. "Women are already being employed on a large scale in the manufacture of munitions, and with the most satisfactory results. They are not only doing the simple unskilled repetition work, for which they have been employed in times of peace, but they are also being successfully employed on work of a much more difficult character, and making considerable demands both on their intelligence and on their physical strength. While it is no doubt better to employ women in separate shops, when this can be arranged, it is realised that time will not permit of such arrangements being made in most tool shops, and therefore women must be employed in the same shops as the

¹ HIST. REC./R/1121/35.

² HIST. REC./R/1700/3.

³ M.W. 58424/29.—This was known as M.T. Circular 40.

men, and if necessary among the men. . . . In each shop where women are employed a responsible woman to act as forewoman and general supervisor should be provided. She should not only have some knowledge of the work, but she should also be the kind of woman to whom the women should go for help and assistance in difficulties." Each employer would realise best how to employ women in his shops, but the following suggestions were offered as to obvious duties which they could perform:—painting, shop sweeping, storekeeping, time booking, drilling, capstan work, gear cutting, simple milling, grinding and lathe operations of a repetition character, and some of the simpler fitting operations. "It must not be expected that trained women can be found. They must be looked on as willing to learn, and must be patiently taught in just the same way as apprentices. . . . The hours of employment for women should be shorter than those fixed for men." The circular concluded by asking for a return of the number of women already employed other than those engaged in clerical work, and inviting suggestions or information concerning the employment of women. It was signed by all the members of the Committee, Messrs. A. Herbert, W. B. Lang, J. W. S. Asquith, W. F. Clark, W. D. Ford Smith and C. H. Churchill. These names naturally carried great weight with employers who doubted the practicability of employing women on a large scale in engineering, but at the same time they did not allay the workmen's fear that dilution was a device for bringing cheap labour into the machine tool trade and undermining the position of the skilled man.

III. Conferences on Dilution with National Advisory Committee.

In the course of August officers of the Ministry held a series of conferences with the National Advisory Committee in order to press home the necessity of dilution, explore the difficulties in its way from the workmen's point of view, and devise some scheme for joint action. The first conference took place on 6 August, when the Committee met Mr. Herbert and Mr. Lang accompanied by Mr. Allingham, of Messrs. Hans Renold, Ltd., Manchester.¹ Mr. Allingham explained how his firm had succeeded in accelerating output by scientific management and new devices for manipulating automatic machinery. He had found the Trade Unions quite willing to discuss improved methods and to recommend their adoption, provided that rates were not cut. Their officials were welcome to come into the works at any time and see that the workmen were not being driven or exploited. No limit was set to earnings; the system had been working three years; not a single complaint had been made against it by workmen or trade union. Mr. Binns, organizing district delegate of the Amalgamated Society of Engineers, confirmed Mr. Allingham's statements. The invariable fairness with which Hans Renold treated their employees predisposed the Engineers to regard with favour any innovation proposed by the firm. After considerable discussion the

¹ N.A.C. Minutes, 27.

following minute¹ was sent to the Minister signed by Mr. Henderson, Mr. Mosses and Mr. Herbert :—

“ In order to secure immediate increase in supplies, and to avoid unnecessary national expenditure on plant, it is resolved to suggest the appointment of a small committee composed equally of labour representatives and of engineers having special knowledge of output. The committee would formulate plans for a systematic endeavour to increase output in such a way as to guard against unfair treatment of the workers ; and should have the necessary powers to ensure that its recommendations receive proper attention from employers and trade unions. Mr. Allingham should be one of the four members of the committee.”

On 12 August Mr. Henderson, Mr. Brownlie and Mr. Mosses met Dr. Addison, Mr. Herbert and Mr. Wolff to consider a proposal to bring a large number of women into the manufacture of munitions and machine tools.² Dr. Addison stated that the Minister wished to appoint a committee to deal with the whole question of introducing female labour into the engineering trade. Mr. Herbert said that additional labour was imperatively required for the manufacture of machine tools. The chief difficulty was anticipated from the employers ; the best way of dealing with them was to send out inspectors, who would explain what was being done by other firms, where women were employed, and endeavour to break down the prejudice which undoubtedly existed against the introduction of female labour. Mr. Brownlie stated that this question had been under the consideration of the Council of the Amalgamated Engineers, who had decided to leave it in the hands of their local committees, subject to the condition that they as a Society had accepted the Treasury Agreement and recognised that they were bound by its provisions. He did not anticipate any trouble from their members, if female labour was largely introduced into the engineering shops. The National Advisory Committee expressed the view that no complication would ensue from this innovation, provided that the Treasury Agreement was observed ; in their opinion the question of wages during probation should be a matter for local arrangement. It was decided to suggest a small mixed committee to carry out the further employment of women in machine tool and munition factories, of which Mr. Brownlie and Mr. Mosses should be members.

On 18 August Mr. Glynn West met the National Advisory Committee and emphasized the shortage of skilled men³ ; those we had must be utilized to the fullest extent ; many firms had put skilled turners on shell work, which was a waste of good material ; these men must come off the lathes and act as supervisors for unskilled men. But what wages should be paid to these untrained substitutes ? In his opinion, since this was a new branch of industry for all but some half-a-dozen firms, the same rates should be paid as were paid to workmen of a similar class in the nearest district where shell

¹ M.W. 37173.

² N.A.C. Minutes, 28.

³ N.A.C. Minutes, 30.

manufacture was carried on, 24s. to 28s. a week for unskilled men. But some of the local trade union representatives maintained that rates should be determined by the type of machine, not by the class of work done on it. He wished to know whether paragraphs 4 and 5 of Schedule II. of the Munitions Act¹ meant that the same rates must be paid to the unskilled workmen, who had to perform merely automatic processes, as had been paid to the skilled men who now acted as their supervisors. He added that the various operations connected with the manufacture of shell were invariably done on piece or premium bonus. The National Advisory Committee were not prepared to give an opinion on this question, since the Trade Unions concerned were trying to arrange a deputation to the Minister to discuss the whole subject.

On 27 August Sir H. Llewellyn Smith informed² the National Advisory Committee that the War Munition Volunteer scheme had failed. Up to 25 August 102,027 volunteers had enrolled. For some of them there was no demand, but a very large proportion were found to be already engaged on Government work, or since the time of their enrolment had been placed on such work. The shortage of skilled men already exceeded 15,000; and within a few months the deficiency must be most acute. The number of Volunteers actually placed up to 25 August was 3,270; and there was little reason for hoping that this proportion would be materially increased, in view of the growing difficulties of effecting any transfers at all. "It seems clear that the scheme will not suffice to overcome the inherent difficulties of the situation, and that other measures are therefore necessary."

On 31 August Dr. Addison attended a meeting³ of the National Advisory Committee and made a statement concerning the labour requirements of the near future. 80,000 skilled workmen would eventually be needed to man the factories in course of construction, of whom 35,000 would be required by October. In addition they must have a large number of unskilled workers, but they did not expect any difficulty in getting them. He then reviewed the various ways by which the skilled men might be obtained. Of the available War Munition Volunteers at least half had already been transferred. In order to release skilled men from the Colours, Lord Kitchener was willing that direct communication should be opened with each home unit; but not more than 6,000 men could be obtained in that way. Then there was the employment of unskilled and semi-skilled men on work now done by skilled men. The local trade union officials had not yet realised the import of the Treasury Agreement in Wales, where skilled turners were still working on shells and unskilled men excluded. Lastly, there was the scheme for employing women. Dr. Addison thought the best way to effect this was to bring about an agreement between the Trade Unions and the employers regarding wages during probation or training and when the women had become proficient. This was, in his opinion, largely a matter for local arrange-

¹ See p. 105.

² N.A.C. Minutes, 33.

³ N.A.C. Minutes, 32.

ment. Afterwards they might undertake a campaign to extend and popularize the employment of female labour in the manufacture of munitions. The dilution of skilled labour was the only way out of the present difficulties. The great necessity of the moment was to impress on the workmen the need of working up to the provisions of the Treasury Agreement and of facilitating the employment of women. Mr. Henderson thought that the local conferences which had been abandoned, with trade union officials and shop stewards, would have done much to achieve Dr. Addison's objects. As an alternative Dr. Addison suggested that the local advisory boards should be brought to London and the Minister asked to address them. In the meantime it was decided to request Mr. Lloyd George to address the Trades Union Congress on the need for an increased and accelerated output of munitions.

IV. Local Opposition to Dilution.

While these discussions were going on between the Ministry and the National Advisory Committee and every day made it clearer that dilution only could make good the requirements of the National Factories and the demands of the munitions programme, events had occurred in the country which showed that, in spite of the Treasury Agreement and the Munitions of War Act, obstinate local resistance would be made to the introduction of female labour and to the grading upwards of semi-skilled men.

On 6 August the National Advisory Committee had received a communication¹ from Woolwich Arsenal, stating that on account of the shortage of toolfitters it had been decided to advance some of their semi-skilled workmen, but trouble was apprehended. The Committee agreed to reply to Sir F. Donaldson that they were prepared to observe the Treasury Agreement in every particular and to ask the Council of the Amalgamated Engineers whether this alleged objection was within their knowledge and had their sanction. The Council referred the matter to their district committee, who resolved² "that we refuse to entertain the proposal to allow the introduction of semi-skilled men on work now done by fully qualified mechanics, as it is not proved there is the shortage claimed."

In accordance with the instructions from the Machine Tool Committee, Messrs. J. Lang & Sons, Johnstone, one of the principal firms in the country making shell lathes, proposed to introduce female labour.³ They therefore gave notice of their intention to their employees, as the second schedule of the Munitions of War Act prescribed, and also enquired how the Amalgamated Engineers would regard such action. On 27 August the firm met their shop stewards accompanied by the district delegate of the Engineers and by Mr. Gorman, a member of the Executive Council. Mr. Gorman intimated that it was the intention of the Council of the Engineers to oppose strenuously the introduction of female labour into the workshops, where engineering

¹ N.A.C. Minutes, 27.

³ A.S.E. *Journal*, Sept., 1915, p. 19.

² A.S.E. *Journal*, Oct., 1915, p. 14.

M.W. 52265.

or toolmaking was carried on apart from the production of shells and fuses. The local committee therefore decided¹ "That no woman shall be put to work a lathe, and if this was done the men would know how to protect their rights."

The Ministry has been severely criticised for not forcing an issue on this decision without delay. Undoubtedly if drastic action had succeeded without causing resentment, dilution would have been carried out in the West of Scotland six months earlier than it was. For the employers regarded this as a test case. When they saw the men defying the instructions of the Ministry with impunity they refused to risk any similar and probably fruitless trouble in their own works.² Further, the apparent inaction of the Ministry encouraged the factious opposition to the Munitions of War Act, which became grave and menacing later. On the other hand, the Ministry was placed at a disadvantage by the fact that Messrs. Lang had not posted any Rules under section 4 (5) of the Act, by which effect could be given by a Munitions Tribunal to section 4 (3), which provided that all rules, practices and customs tending to restrict production and employment should be suspended in controlled establishments. But the main reason for delay was no doubt the hope that further negotiations with the Trade Unions might lead to more reasonable action on their part, and the fear lest a serious strike might cause bitter and widespread resentment, which would effectually prevent the men from doing their best during the all-important months that lay ahead. It was becoming clear also that dilution involved difficult questions concerning the wages of women and semi-skilled men, which were not adequately met by the provisions relating to wages in the second schedule of the Munitions of War Act. Those provisions required authoritative interpretation and extension by the Ministry before much progress could be expected. For the notion that the adjustment of wages consequent upon dilution could be left for local arrangement soon proved illusory, in view of the temper of the workmen in the chief industrial centres, and the fact that the prohibition of strikes and the institution of leaving certificates had rendered local negotiations between Trade Unions and Employers' Associations barren if not dangerous.

V. Mr. Lloyd George's Speech at the Trades Union Congress. 9 September, 1915.

On 9 September Mr. Lloyd George spoke³ at the Trades Union Congress at Bristol. "With you," he said, "victory is assured; without you our cause is lost." The story of the last twelve months showed what organized Labour could do in this war. By the end of September, 1914, the German armies were checked. They sustained an overwhelming defeat in France, Russia was advancing against them towards the Carpathians. "That is not the case to-day. Why? The German workmen came in. Organized Labour in Germany

¹ A.S.E. *Journal*, Oct., 1915, p. 13.

² M.W. 53193.

³ See *Trades Union Congress Annual Report*, 1915, pp. 352-362.

prepared to take the field. They worked, and worked quietly, persistently, conscientiously without stint or strike, without restriction, for months and months, through the autumn, through the winter, through the spring. Then came the terrible avalanche of shot and shell which broke the great Russian armies and drove them back. That was the victory of the German workmen. That German advance in Russia was the victory of German trade unionism."

The War had become a conflict between the mechanics of Germany and Austria and the mechanics of Great Britain and France. It was a war of material. We had plenty of valour. No army that ever entered a battlefield showed more courage than the armies of Britain in France, in Flanders and in the Dardanelles. But we must back them up. "We must make, we are making, the most prodigious efforts to increase our war material during the next few months in order to give our gallant fellows fair play in the field. We have set up 16 national arsenals. We are constructing 11 more." To man these and other munition works 80,000 more skilled men were needed, and 200,000 unskilled men and women.

"This country at the present moment is not doing its best. It is not doing its utmost, and it is almost entirely a labour problem, and you can alone assist. . . . To begin with, the machinery in this country which can be employed for war materials is not working night and day. You have only got 15 per cent. of the machines which you could use for the turning out of rifles, cannon and shells working night shifts. If you could get plenty of labour to make these machines go night and day—ah, just think of the lives that could be saved."

How was that to be done? There would not be enough labour for the task on hand, if every skilled workman in the kingdom were employed on it. Diluting skilled labour with unskilled did not mean turning out the skilled workman in order to put a cheaper workman in his place. There was plenty of work for the skilled workman. There were not enough skilled workmen to go round. But highly skilled workmen with years of training were doing work which could just as easily be done by those who had only had a few weeks' or a few days' training. They must leave such work to the unskilled, and reserve the highly skilled for work which nobody could do except those who had great experience, training and skill. We could not equip our armies in time unless organized Labour was prepared to assist in that way. They must suspend during the war all restrictions which made it difficult to make the best use of skilled labour by employing unskilled under skilled direction for all work for which highly skilled labour was not absolutely indispensable.

Again, trade unionists could help by suspending during the War all practices and customs which had the effect of preventing men from turning out as much work as their skill and strength permitted. Lastly, there must be no stoppage in essential work during the period of the War.

Mr. Lloyd George then proceeded to explain the bargain which the Government had made with the leaders of the Trade Unions at the Treasury Conference. "Has the State kept the bargain? (A voice, 'No!') I am going to tell you. Profits, restrictions of profits. Does anybody say we have not kept the bargain? (A voice, 'Nobody knows!') Nobody knows? We have declared 715 establishments producing munitions of war to be 'controlled establishments'; we have put them under control of the State . . . and do not forget this, we have not asked any Trade Union to suspend any regulations except in an establishment where we control the profits.

"What have we done about controlling the profits? We have controlled them by an Act of Parliament. (A voice, 'What about shipping?') You don't make shells with ships. (Laughter.) I am talking now about the shops which are making guns and rifles and shells and machine tools for turning out shells and guns. . . . We are restricting them on the basis of what they earned before the War. . . . They are only going to get the standard which is based upon the profit made before the War, with any allowance which is made by us in respect of increased capital which they have put in. What do we do with the balance? We put it into the Treasury to carry on the War. (Cheers.) It is the first time it has ever been done in the history of any country. You have practically taken over the whole of the engineering works of this Country and controlled them by the State. I have seen resolutions passed from time to time at Trades Union Congresses—(Laughter)—about nationalising the industries of this country. We have done it. (Cheers and laughter.) . . . As far as that part of the bargain is concerned we have carried it out in the letter and in the spirit. I come to the other part of the subject as far as the employer is concerned. A question was put to me, 'What about the employer?' I will tell you what we have done with him. We have taken power to take his works, and we have taken them. We have taken power to take his machinery, and we have taken it in many cases. We have taken full power to order him what to do and what not to do, and we are doing it every day from Whitehall Gardens. . . . We have compulsory service for the employer, and we have not yet had a resolution—(Laughter)—of protest from the Trades Union Congress for this infringement of the liberties of the subject. (Renewed laughter.)

"The next undertaking we gave was that we would give a guarantee that at the end of the War the pre-war conditions would be restored. How have we done that? We have done it, not merely by solemn declarations on the part of the Government, but we have embodied them in an Act of Parliament. We have a statutory guarantee carried unanimously by Parliament, by men of all Parties. . . . They are all in it, and they are all committed to that guarantee.

"The third point is piece rates not to be reduced anywhere, and we have given an undertaking that they should not. If any man can

give me a single case in any armament works, or in any works where war munitions are carried out, where piece rates are cut down, I will guarantee to put it right within 24 hours.¹

"The fourth point is that unskilled men and women must be paid the same piece rate as the skilled men. That was the bargain. If an unskilled man or woman turned out as much work as a skilled man, why on earth should they not be paid the same? (A voice, 'It is not done.') Very well, send the case to me, and I will look after that. That is what I wanted to have a talk with you for. I wanted you to feel that, at any rate, the Government means to carry through their part of the bargain. Of course, we don't pretend to omniscience. We can only see what is going on through the eyes of others, and if anybody from any part of the Kingdom can point out to us that some part of this bargain is not being adhered to, then the responsibility will be ours. Those are the four parts of the bargain so far as we are concerned, and I guarantee to you they will be carried out in the letter and in the spirit.

"I am going to ask you a much more unpleasant thing. How is the other part of the bargain being kept? I am sure you will bear with me while I talk to you plainly. In many cases I say, 'Yes, it is adhered to honourably.' In far too many cases it has not been carried out."

Mr. Lloyd George then gave a number of illustrations. The Trade Unions had promised to suspend every regulation and practice which restricted output or interfered with the best use of the labour available. But at Woolwich semi-skilled men were prevented from undertaking the work of skilled mechanics. From South Wales he had received a resolution saying that unskilled labour must not be put on lathes to turn shells. At Birmingham the Local Branch of the Engineers refused to allow a textile mill-wright to put up machinery for making machine guns. Elsewhere there were squabbles over demarcation between

¹ This pledge went much further than the Treasury Agreement, which only provided that "the relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job." But the necessity of getting increased production had driven the Ministry to consider the advisability of undertaking to use Section 4 (2) of the Munitions of War Act to prevent the cutting of piece rates if production was increased. Accordingly on 15 September, 1915, the following statement was sent to the Press, and a few days later to all controlled establishments.

"The Minister of Munitions has been informed that workmen employed in controlled establishments have been deterred in some cases from complying with the requirement of the Munitions of War Act that all rules, customs, or practices tending to restrict production should be suspended in such establishments, by fear that any considerable increase in output might lead to a reduction of the piece rates paid to them.

"In view of this, the Minister desires to call attention to the fact that under the above named Act, no change in the rate of wages, salary or other emoluments, to any class of persons employed in a Controlled Establishment can be made without notice to the Minister, who may thereupon withhold his consent to the change proposed, subject to the power of either party to demand arbitration.

"The Minister is prepared to exercise his powers if necessary in order to prevent the reduction of piece rates as a consequence of the increase of output due to suspension of restrictions." (Hist. Rec./R/360 27).

coppersmiths and plumbers. Toolmakers would not permit women to help the skilled men to make shell lathes. In some places the usual trade restrictions of output were rigidly maintained, and life was made a burden to the workmen who tried to give of their best. Their tools were lost or stolen, or they were set wrong. One man was fined a pound by his branch for working too quickly. Another was alleged to have finished a job on a howitzer in $8\frac{1}{2}$ hours that ought to have taken $31\frac{1}{2}$. "The men were invited to go and practically to mock at this man, to watch him, and keep their eye on him. . . . What does that mean? It means that there is an attempt deliberately to restrict the output of guns which are vital to the protection of the lives of our men at the front. Is there anyone here who will defend action of that kind? (Loud cries of 'No!') There are hundreds of thousands of trade unionists who have gone to the front, and I want those who stay behind to give them fair play. (Cheers.) That is not fair play.

"A complaint came to me from Woolwich that there was a deliberate attempt to keep down the output. The Labour Advisory Committee investigated it, and a trade unionist defended the men in this particular case. The significance of his testimony was this—and I am quoting now from the report of the investigators: 'The trade union witness regretted having to acknowledge that the workmen in several departments restricted output in order to maintain the prices obtained before the War, and this was continued up to the present time.' Well, that is not carrying out the bargain. (A voice, 'It is not playing the game.') I agree.

"I had a visit the other day from a very distinguished socialist—I think the greatest socialist orator in Europe—M. Vandervelde. (Cheers.) No man will challenge his sympathies with Labour. He is the greatest living and the most eloquent champion of Labour. He came to complain to me of cases in which Belgian workman had been interfered with for working too hard. The Belgian workman has several reasons for putting his back into his work. (Hear, hear.) But whenever they have worked their best they have always been warned that they were breaking some trade union custom. They have been invited to desist, and they do not understand it. Their homes have been destroyed; their native land has been ravaged, trodden upon; Belgian women have been dishonoured; Belgian liberties have been trampled under foot; and Belgian workmen cannot understand entering into any conspiracy to keep down the output of rifles and guns and shells to drive the oppressor from the land which he is trampling under foot. I do say, if there be any man who wants to dawdle while his country is in need of him, do let him have the decency at least not to appeal to Belgian workmen not to avenge the dishonour of their country. I say I have the right to ask the organised Labour of this country to go forth courageously, uprightly, and fearlessly, as I know they will, and say they have no lot or part in trying to hold the arm of their native land when it is fighting for its life. (Cheers.) . . .

"Do not forget the future of Labour depends largely on what happens during this War. There are impressions made on the minds

and the hearts of the people to-day which you cannot make in a thousand years under ordinary conditions. The whole country is a molten mass in the great blast furnace of war, and any impression which you make now will be deep, indelibly deep. Labour has not yet won its rights. The higher the ideal which you put for Labour the longer the road you have got to travel, and the more difficult it is, and you cannot do it without friends. . . . The people of this country, the vast majority of them, are neither capitalist nor trade unionist. You must get them with you. After the War there are things you can do if you win the heart of the country that you could not achieve in generations. The country will want a resettlement, a reconstruction. It feels in its conscience that things are wrong, and it will want to do the right. . . . I beg you, as a man brought up in a workman's home, do not set the sympathy of the country against Labour by holding back its might by regulations and customs when the poor old land is fighting for its life."

VI. New Scheme of Labour Supply proposed, involving Industrial Compulsion.

In consequence of the failure of the original schemes for providing skilled labour, Mr. Beveridge drew up a memorandum¹ early in September proposing to give effect to the policy of dilution in conjunction with a modified Munition Volunteer scheme, which involved indirect compulsion. The chief points in the memorandum which influenced the subsequent policy of the Ministry in various ways were as follows :—

Since the War Munition Volunteer Scheme will certainly not meet the needs for skilled labour, a new scheme must be devised. Experience of the old scheme suggests four main lessons.

- (1) The number of skilled men available for munitions, apart from men who have joined the Forces, is extremely limited and difficult to discover. Personal investigation is essential by men of technical engineering experience, in so far as it seems likely that the only considerable reserve of skilled labour lies in the skilled men now doing semi-skilled or unskilled work.
- (2) The terms of employment of War Munition Volunteers have produced much discontent among their fellow-workers. It is essential probably to give some kind of subsistence allowance ; but it is essential that this should not appear as wages, and that it should be paid to the man's family.

¹ HIST. REC./R/320/34.

- (3) Some form of compulsion to secure the transference of men is probably necessary. Under the Defence of the Realm Acts, as amended by Section 10 of the Munitions of War Act, there is ample power of compulsion so far as the employer is concerned. Under Regulation 8A of the Defence of the Realm Regulations it is possible to stop the carrying on of private work in any particular factory or to restrict the employment of skilled men to skilled work, so that indirectly the men whom it is desired to transfer will be made available for transfer by the stopping of their present employment.¹

It must of course be recognised that indirect compulsion of this sort might cause resentment among workmen, and might even cause more resentment than direct compulsion or a scheme of industrial conscription under which any man might be ordered subject to a penalty to proceed to any specified employment. It would be desirable to make the compulsion part of a general scheme of controlling private work in engineering shops rather than merely a device for moving labour.

- (4) The machinery of the War Munion Volunteer Scheme has been, on the whole, over-centralized. This was due to the difficulty felt in using the existing decentralized machinery of the Labour Exchanges in connection with enrolment. The registration, selection and submission of War Munion Volunteers have been centralized at 6 Whitehall Gardens, and this centralized organization has necessarily been somewhat slow and incapable of direct local action. It is suggested that in any fresh scheme use must be made of the existing Board of Trade machinery for securing the rapid investigation, transfer and registration of men locally. It would be merely confusing to endeavour to start any fresh Labour Exchange machinery through Area Offices or Munitions Committees. At the same time it is important to keep Area Offices in touch with the whole work of removing men, particularly in so far as those transferred may raise difficult questions regarding the removal of trade union restrictions under the Munitions of War Act.

In the light of these considerations the following scheme was proposed :—

- (1) The Superintendent Engineer at the Area Office will be responsible for investigating the engineering works in his district to discover whether skilled men required for munitions are engaged on private work or on processes which could be performed by semi-skilled or unskilled

¹ The "Embargo" policy of 1918 was a strictly limited application of these powers.

labour, male or female. His report will be communicated to the Labour Officer with any information obtained concerning the importance of the private work, or the willingness of the employer to release the men.

- (2) If no question arises concerning private work, the Labour Officer will through the Divisional Officer request the local Labour Exchange Officer, acting for the Ministry of Munitions, to visit the employer in order to arrange with him for the release of the men, and to enrol the men so released in the King's Muniton Corps. If the employer refuses, he will be told that the Minister of Munitions has power to restrict the carrying on of private work in his factory, and to regulate the classes of men to be employed there, and that a recommendation will be made that he should exercise his powers. The men will be invited to enrol as before.
- (3) If there is a doubt whether the private work ought to be stopped, this will be reported to the Ministry of Munitions for adjudication as a question of the relative urgency of munitions work and this private work. The reference to adjudication will be needed only when the question of suppressing private work arises. It will not be necessary as regards the replacing of skilled by unskilled labour.
- (4) Workmen whom it is proposed to transfer will be enrolled as members of the King's Muniton Corps, and will sign an undertaking placing themselves unreservedly at the disposal of the Ministry of Munitions for six months. The terms will be the district rate and a separation allowance on the Army scale, so long as the workman is separated from his dependants. The Ministry of Munitions will undertake to find him work or wages so long as he is willing to accept suitable employment. Provision will be made for referring questions of suitability or rate to be paid to the Munitions Tribunal. The workman will get a badge, and possibly a uniform. It is doubtful whether enrolment in the King's Muniton Corps should be limited to skilled men. Released soldiers should be enrolled on similar lines.
- (5) The Labour Exchange Officer will at the time of his visit arrange at once any actual transfers of men to munitions work within his clearing district. Each Exchange will be kept informed concerning the demands for men.
- (6) Men whom the Exchange cannot place within its own clearing district will be reported on a surplus labour list to the National Clearing House, which will arrange for their placing in other districts.

- (7) As regards the transference of men, essentially Labour Exchange work, the Labour Officer will act principally if not wholly through the Labour Exchange. He will, however, have a special function on behalf of the Ministry of Munitions in clearing away trade union restrictions and enforcing the Munitions of War Act. For this purpose he will be in touch with the local Labour Advisory Board, and it will be his business to bring proceedings. He will be able to use the Labour Exchange Officer as required for local negotiations.
- (8) No further enrolment of War Munition Volunteers should be made; and no more men moved on War Munition Volunteer terms. Men transferred as War Munition Volunteers and men whom it is proposed to transfer will be invited to enrol in the King's Munition Corps.
- (9) The Labour Exchange Officer will be engaged in following up the results of National Registration, calling up all suitable men not engaged on Government work and inviting them to enrol.

VII. Conference between the Ministry and the National Advisory Committee on Dilution and Industrial Compulsion.

On 13 September Mr. Lloyd George presided over a conference on labour supply¹ attended by the principal officers of the Ministry, the adjudicators and members of the National Advisory Committee. Mr. Lloyd George invited discussion on three subjects :—(1) the failure of the Munition Volunteer Scheme and its possible amendment, (2) the value of dilution and the method by which it should be approached, (3) the means of inducing Labour to give its best without restriction.

The adjudicators explained their difficulties in transferring men and how they had dealt with protests. Mr. Duckham expressed the opinion that dilution was the only method by which the skilled labour required could be obtained. "No system of tooth-combing the country for volunteers or even compulsion is going to be of any use, unless we dilute."

Mr. Herbert suggested that the engineering firms, after inspection to ascertain how much Government work they had on hand, should be licensed to employ only the number of skilled men necessary to carry out the Government contracts. The rest they should be called on to dismiss. The men so discharged would soon find the right kind of employment through the Labour Exchanges. This suggestion was simple; it would inflict no hardship; it would involve no large expenses for allowances; it would encourage the employment of unskilled and female labour.

¹ HIST. REC./R/320/3.

Mr. Brownlie and Mr. Mosses contended that the Munition Volunteers had not had a fair trial. Even Government factories had refused to take them for fear lest the subsistence allowance should create discontent in the workshops. But if the introduction of Volunteers was going to cause serious trouble, the National Advisory Committee should have been informed. They would then have sent a deputation to interview the men, for they were most anxious to assist the Ministry. But though they had done their best to get the men enrolled, they had scarcely been consulted from that moment till now. Further, many employers had no doubt deceived the inspectors by taking the men off commercial work a day or two before the inspectors' visit. Mr. Henderson hoped that the Minister would not adopt Mr. Herbert's scheme. His object would be defeated if firms were encouraged to dismiss their men in order that they might be picked up at any rate an employer chose to offer, or to get rid of the subsistence allowance. A further trial should be given to the Munition Volunteers; all had not been done that might have been done. Dilution in his opinion should be encouraged; but he did hope that it would be put forward without reflecting on the Volunteer Scheme or the men who had enrolled. Any suspicion that an attempt was being made to get round the conditions of that scheme would entirely defeat the object of the Conference which the Advisory Committee had summoned to further dilution.

Mr. Eric Geddes suggested that a notice might be put up in the works, stating the number of skilled men whose employment was justified. That would tell the men in the place that (say) 50 married men should stop and the young unmarried men ought to go. "It seems to me that is merely telling the employees what the State wants them to do, and I believe that throughout England if the people to-day are told what the State wants them to do, they will come forward. I would not exercise any pressure because the only pressure you can exercise is conscription. That is another matter. I do not think you should impress anybody until you decide that everybody has to be impressed. Men will come, if you treat them fairly."

Mr. Mosses said that all agreed that dilution was necessary, and the surplus skilled labour must be transferred. But what authority should effect the transfer? In his opinion the men would resent transfer at the hands of their own officials less than any other way. The Trade Unions or the Labour Advisory Boards should be made responsible for the transfer of labour from one district to another, and also for the sanction of the men most suitable to be transferred. They knew their domestic position and their qualifications as workmen. Let the Government give the number of men who could be dispensed with; and let the local people who knew the circumstances of almost every man in the place select the men.

Mr. Glynn West was not in favour of Mr. Herbert's proposal. His Engineers should visit every works in the country, and as

they gradually found out about them, commercial work would be cut down and skilled men taken off unskilled work. Those who could be released should be enrolled as volunteers through the Labour Advisory Board¹ and transferred in the ordinary way. It would be arranged on the spot what men were available, so that the main difficulty in transfer at present would be avoided.

Mr. Henderson said that the only difficulty in his mind concerned the machinery by which effect would be given to what had been agreed. If the matter was left where it was, it would be the old case of too many cooks spoiling the broth, as had happened with the Munition Volunteers. Most of those present would agree that probably more was to be got by the proper dilution of skilled labour than out of any compulsory scheme. "If you had compulsion for industry to-morrow I am not satisfied that you could get very many more skilled men placed at your disposal. When I came to that conclusion two or three weeks ago, I put it before my own Advisory Committee whether we should not go on another tack and make an attempt to dilute skilled labour by putting a skilled engineer in charge of ten or twelve semi-skilled or unskilled men or women, and then spread the skilled labour. I am quite sure of this—that if that line can be followed we should probably very largely increase the output. There is no engineering establishment in this country that ought not to be running its machines night and day. The only way to get that is to dilute skilled labour with semi-skilled men or with women. I have suggested to the Minister of Munitions that the next step was to bring up the Executives of the Trades Unions and impose upon them the responsibility for seeing that this thing was given effect to. We had two conferences when the Munitions Act was set up, but they were not Conferences of Executives. . . . We have to go to those who are officially responsible to the whole of the members, and if we can get such a conference, and we begin this process of dilution, I am quite sure we could very largely increase the output. . . . There are thousands, if not tens of thousands, of men to-day who are refusing to work piecework for the simple reason that they have never worked piece work before. I know a great many organised workers are opposed to piece work, because they say it keeps so many of their fellow men out of employment. But we have to impress on these men that they should set this objection on one side. By dilution and by introduction of piece work I would venture to say that the output ought to be increased by 25 to 50 per cent. Industrial compulsion will set the whole trade union movement against us, and we cannot afford it."

Mr. Lloyd George being unable to remain till the end of this conference, no resolutions were put forward. But on 14 September the Committee of Adjudicators passed the following resolution,²

¹ See p. 54.

² M.W. 52482.

Mr. A. Illingworth and Mr. Graham Spicer dissenting from it in so far as it related to military service :—

“ In response to the invitation of the Minister of Munitions for an alternative scheme to that of the War Munition Volunteers, this committee resolves that dilution of the existing skilled labour by unskilled and female labour and the removal of all restrictions upon output, combined with the return of skilled men from the colours, would provide the necessary labour for the manufacture of munitions, if national service, which, the committee understands, includes military service, with State control of labour and industry, were imposed for the period of the War.”

About the same time the Ministry of Munitions determined to set up a joint committee, representing the National Advisory Committee and the Ministry with additional members, to advise and assist the Ministry in regard to the dilution and transference of skilled labour and the introduction of semi-skilled and unskilled labour for munitions work.

VIII. Conference of Trade Union Executives on Dilution. 16-17 September, 1915.

On 7 September the National Advisory Committee decided¹ that the Executive Councils and organising delegates of certain societies whose members were engaged in the production of munitions should be invited to attend a conference on 16 September in the Wesleyan Hall, Westminster, to consider how the output of munitions could be increased and the necessity for industrial compulsion obviated. Mr. Henderson presided, and all the principal Trade Unions were represented except the Amalgamated Society of Engineers, who had arranged for a separate meeting with the Minister the following day. Mr. Lloyd George attended and addressed the conference on the urgent need for the relaxation of all trade union rules and restrictions which interfered with the production of tools and munitions. Questions were asked and answered, and it was resolved that the National Advisory Committee should prepare a series of resolutions for presentation to an adjourned meeting next morning, with the object of increasing and accelerating the output of Government work by the relaxation of such restrictive trade union customs and regulations as interfered with a maximum output.²

The Committee prepared the resolutions as directed, based on the discussion of the afternoon.

On 17 September the conference was resumed, Mr. Henderson presiding. With the exception of Mr. Brownlie, all the members of the National Advisory Committee were in attendance. Reference was made to the absence of the representatives of the Amalgamated

¹ N.A.C. Minutes, 33.

² N.A.C. Minutes, 35.

Engineers the previous day, and to the fact that they were to meet the Minister of Munitions in separate conference that morning.¹ After considerable discussion the following resolution was agreed to and acted on :—

“ That a message be forwarded to the Minister of Munitions, requesting that no further conference be granted to, or agreement made with, any individual union who were invited to but not represented at this conference.”

The meeting then proceeded to consider the proposals of the National Advisory Committee, which were eventually agreed to as follows² :—

“ That this Conference . . . accepts the statement of the Ministry of Munitions that further effort is required in order that the supplies of war material may be increased and accelerated. It learns with satisfaction of the proposed appointment of a Government Central Munitions Labour Supply Committee invested with extensive powers to carry out the following objects :—

A Joint Committee representing the National Labour Advisory Committee and the Ministry of Munitions with additional members to advise and assist the Ministry in regard to the transference of skilled labour and the introduction of semi-skilled and unskilled labour for munition work, so as to secure the most productive use of all available labour supplies in the manufacture of munitions of war.

The Conference ventures to express the opinion that in order to render the work of this Committee effective, it is essential that there should be complete co-operation between it and the local representatives of the Trade Unions and others concerned through the medium of the Munitions Committees.

Further, in order to give effect to the Treasury Agreement of March last, the Conference pledges itself :—

- (1) To secure the suspension of all restrictive rules, practices and customs such as the limitation of overtime and the prohibition of piece work upon war work, in Government arsenals and controlled establishments, subject to the statutory safeguards of the Munitions of War Act.

¹ This Conference did not result in any resolutions or agreement. A number of particular difficulties were discussed, especially the question of dilution at Messrs. Lang's, and certain grievances about works rules and leaving certificates. Mr. Lloyd George outlined the functions of the Central Munitions Labour Supply Committee (see p. 51) which it was thought would be able to dispose of such difficulties as those brought forward at the Conference. HIST. REC./R/320/4.

² N.A.C. Minutes, 35.

- (2) To render all possible assistance in the carrying out of a systematic investigation, not only in Government arsenals and controlled establishments but in all other factories, with a view to determining the least possible amount of skilled labour necessary to enable the machinery to be employed for the full 24 hours in each day.
- (3) To assist in the reorganization of the skilled labour employed in Government arsenals and controlled establishments in order that semi-skilled or unskilled male and female labour may be employed on a much more extensive scale subject to the conditions of Schedule II. of the Munitions of War Act.
- (4) To give all possible assistance in securing the transfer of suitable men enrolled under the Munition Volunteer Scheme to any district where their services are required subject to the observance of the conditions applying to the Munition Volunteer Scheme, and to assist in the further enrolment of Volunteers for this purpose.

That in order to give effect to the above scheme, the Conference strongly recommends that local conferences of branch and district officials and shop stewards be held in the various munitions centres as early as can be arranged, at which the Minister of Munitions or other representatives of his Department shall be present."

The work of the Central Munitions Labour Supply Committee in developing these resolutions and carrying them into effect will be considered in the next chapter.

CHAPTER IV.

THE CENTRAL MUNITIONS LABOUR SUPPLY COMMITTEE AND DILUTION.

I. Composition and Functions of Committee.

The members of the Central Munitions Labour Supply Committee were the Rt. Hon. Arthur Henderson, Chairman ; Mr. Charles Ellis, Mr. Glynn West, Mr. Alexander Duckham, Mr. W. H. Beveridge and Mr. C. F. Rey, representing the Ministry of Munitions ; Mr. J. T. Brownlie (A.S.E.) and Mr. W. Mosses (Patternmakers), representing the National Advisory Committee ; Mr. W. Dawtry (Steam Engine Makers), Mr. J. Kaylor (A.S.E.), Mr. C. Duncan (Workers' Union), Miss M. Macarthur (Women's Trade Union League), and Mr. Allan M. Smith, Secretary of the Engineering Employers' Federation. Mr. R. C. Davison acted as Secretary to the Committee.

The Committee was appointed on 20 September, 1915, "to advise and assist the Ministry of Munitions in regard to the transference of skilled labour, and the introduction of semi-skilled and unskilled, for munition work, so as to secure the most productive use of all available labour supplies in the manufacture of munitions of war."

Mr. Lloyd George intended that this Committee should not only advise on the methods of effecting dilution and obtaining the skilled labour required to staff the new factories, but should also assist in investigating and settling disputes and grievances arising out of dilution and the administration of the Act by Munitions Tribunals. At his conference with the Amalgamated Society of Engineers on 17 September he said¹:—"What I want to find is some sort of machinery by which all these disputes can be settled here—I do not mean by officials. My suggestion is that we should have a Committee sitting up here permanently, upon which your body should be represented and all others who are concerned (it must not be a large Committee, because with a large Committee you cannot have so much work constantly done) which could settle all these things and report to me.... I cannot go into every case like that (the dispute at Messrs. Lang's, Johnstone). There may be cases of hardship, but this Committee will be sitting permanently here, with its own staff. It will report upon all these things and work with the Ministry, and I shall be working through their advice and recommendation."

After considering the work done by the several Sections of the Secretariat, the Committee concluded² that Sections A, D, and H

¹ HIST. REC./R/320/4.

² Memo. 18.

came within the scope of their reference—Section A in that it administered the enrolment, allocation and transfer of Munition Volunteers and the arrangements for Release from the Colours; Section D in so far as it dealt with complaints, disputes, overtime, the suspension of restrictive rules and practices, the Fair Wages Clause and the sanctioning of changes of wages concerning which the Committee made recommendations; Section H in as much as it directed the Labour Officers. The Committee were of opinion that all questions of policy affecting the work specified of these Sections should with the approval of the Minister be referred to them for their advice and assistance.

The exact scope of the Committee's work engaged the careful attention of the Committee and the Ministry. On the one hand it was felt that the Committee should not merely offer advice, which might be quietly set aside by administrative action. On the other hand some members of the Committee conceived that it was their business to take an active part in administration by sending deputations to supervise the introduction of dilution. It was even suggested that all executive action by the Departmental Officers and the Technical Inspectors should be subject to the advice and assistance of the Committee. But clearly the executive machinery of the Department would be paralysed, if the Committee had to be consulted before any administrative measures were taken.

Dr. Addison accordingly wrote¹ on 14 October to Mr. Henderson and said that Mr. Lloyd George was in general agreement with the description of the scope of the activity of the Committee, except that he did not think it desirable to burden the Committee with the difficult and intricate questions affecting not only the Ministry but also the War Office, which arose out of the Release of men from the Colours. "Mr. Lloyd George has given instructions that in regard to all matters within the terms of reference of the Committee its advice shall be sought before any steps involving a change of policy are taken. He has further directed the officers of the Ministry attached to the Committee, to present regular reports of progress dealing with all the matters enumerated in the memorandum as subjects in which your Committee is interested, so as to give the Committee an opportunity of raising any point. Mr. Lloyd George hopes that by these instructions he will secure that your Committee shall have an effective oversight over the various matters with which it was appointed to deal, without being overwhelmed with attending to the ordinary current administrative business of the office. The Departmental Staff, however, who are charged with giving executive effect to the policy adopted, will be instructed closely to co-operate with the Advisory Committees both local and central on the lines agreed upon. As you are aware, Mr. Lloyd George proposes to strengthen the staff by an officer who will be specially responsible for giving effect to the policy of securing the most effective and economic use of skilled and unskilled labour, both male and female, in munition factories. This officer will be added to the Committee."

¹ M.W. 58424, Memo. 24.

II. Circular C.E.1. Policy of Dilution.

The Committee met for the first time on 22 September. It immediately appointed two Sub-Committees to consider and report on (1) the fixing of wages in connexion with the introduction of semi-skilled and unskilled labour where only skilled workmen were previously employed (2) the constitution and functions of local Labour Advisory Boards. In the meantime the Committee took into consideration the draft of a letter to controlled establishments, which should set out the principles of dilution and call for returns showing the number of skilled men who would be set free by their adoption.

The basis of this letter was a circular drawn up in August and sent out to Boards of Management early in September. In its final shape it was signed by Mr. Lloyd George on 4 October.¹

The Minister began by urging the necessity of making the most effective and economical use possible of all available machinery and skilled labour. He had reason to believe that many machines were not fully utilized, that night shifts were not organized in some districts, that skilled workmen were employed in too large a proportion to semi-skilled or unskilled men. This state of affairs must be remedied without delay. The urgent present and prospective demands for skilled workmen could not be satisfied, unless they were strictly limited to work for which their special skill was essential. In particular the manufacture of shells and fuses required skilled labour only for supervision and the setting up of machines. Even for these purposes a competent machinist accustomed to set up his own machine, not a fully-trained mechanic, was necessary.

The Treasury Agreement provided for the suspension of all Trade Union restrictions on munition work, and afforded the requisite safeguards to the workpeople affected; the Munitions of War Act made these provisions statutory for controlled establishments. But in order to give effect to the Act, it was necessary to post a rule in each establishment forbidding any attempt to restrict production or employment. It was also essential to give notice to the workmen employed of any proposed change, to afford an opportunity of local consultation if desired, and to observe the other conditions set forth in the Second Schedule of the Munitions of War Act.

Finally Mr. Lloyd George enjoined the firm to take immediate steps to carry out this policy, and to fill up a form showing the number of skilled men employed in operating (1) machines of any kind on shell and fuse work, (2) capstan lathes and other automatic and semi-automatic machines on other work, or (3) engaged on other processes which might be performed by less skilled labour. The firm was also asked to state under each of these three heads the number of skilled men required for supervision and setting up, and to enable night shifts to be worked. In order to complete the statistical information the firm was instructed to fill up Form Z.8,² showing, *inter alia*, the total number of their employees, how many of them were on short

¹ See Appendix III. ² A periodical questionnaire issued by the Board of Trade.

time or overtime, how many were engaged on Government work, what plant was idle and for what reason, how many pivotal men and unskilled workpeople were required to work it to its full capacity, and how many mechanics of each class were employed.

This circular letter was sent out on 6 October, and a reply was requested within seven days. On 19 October it was reported that 633 returns had been sent in, 243 of which showed that the firm had no men of the classes specified, and 118 that further dilution was not possible. 176 forms were almost certainly filled up inaccurately and must be returned for correction. It was doubtful whether 92 were accurate; but on the assumption that they were, 2124 skilled workmen were available for transfer. Four returns only gave a certain and satisfactory answer to the enquiry, showing that 19 men might be transferred immediately, and 84 more after a short period necessary for re-adjustment. These figures proved that the policy of dilution would not be carried into effect by circular letters; for that purpose local investigation by expert engineers and the driving force of a strong executive department were essential.

III. Constitution and Functions of Local Labour Advisory Boards.

In the meantime the Sub-Committee on the constitution and functions of local Labour Advisory Boards, Messrs. Beveridge, Mosses and Allan Smith, had drawn up a report on lines already laid down by Mr. Mosses and provisionally adopted. For these bodies had been set up at the instance of the National Advisory Committee in the principal industrial centres in the course of April, May and June.¹ But hitherto neither the War Office, nor the Ministry of Munitions had agreed to their constitution or to their functions.

It was now proposed² that these Boards should be established in such districts as the National Advisory Committee with the approval of the Ministry of Munitions should determine. Each Board should consist of seven members, elected from those Trade Unions whose members were concerned in the production of munitions of war. Each Trade Union should appoint two delegates to elect the members of the Board; but no Trade Union might have more than one representative on the Board. Each Board should have a Chairman and a Secretary. The Secretary should take the minutes, conduct all correspondence and furnish the National Advisory Committee with an epitome of the business transacted at all the meetings.

Notice of all Board meetings should be sent to the Local Officers of the Ministry, who should have the right to attend any ordinary meeting of the Board, and should either attend in person or send a responsible representative, if notified that business affecting the Ministry would be under discussion. Special meetings to deal with business concerning the Ministry might be called on the request of the Local Officer of the Ministry or of the Chairman and Secretary of the Board, if occasion required.³

¹ See Vol. I., Part III., Ch. IV., p. 68.

² Memo. 4.

³ Memo. 15.

The duties of the Board were as follows¹ :—(1) Its general function was to act as the agent of the National Advisory Committee in the district, reporting to it and negotiating with the local representatives of the Trade Unions. But the Board should in no case take up disputes with employers. That was a matter either for the Ministry of Munitions or for the Trade Union concerned. (2) It was the Board's duty to see that employers carried out the provisions of Schedule II. of the Munitions of War Act, to report all cases of failure to the Labour Officer or the National Advisory Committee for action by the Ministry and to record or verify changes of workshop practice. (3) The Board should assist the Ministry in the enrolment and transfer of War Muniton Volunteers. It would receive from the Ministry a statement of the number of men who could be set free from the various workshops, and should take steps to encourage the enrolment of men up to this number at least. The Labour Supply Officers would also report to the Board particular cases where sufficient enrolments could not be secured in order that the Board might remedy this if possible through the Trade Unions. (4) The Board should report to the Labour Officer or the National Advisory Committee, all disputes and difficulties and cases in which men were engaged on private work or insufficiently employed, and should co-operate generally with the Labour Officers and the local representatives of the Trade Unions, to secure the most effective use of labour on the production of munitions of war.

Finally it was proposed² that each member of the Board should receive a fee of 2s 6d for attending a minuted meeting (not more often than once a day), travelling expenses if he had a distance exceeding two miles to travel, and compensation for time necessarily lost from work at the rate of 1s an hour. Trade Union officials in receipt of fixed salaries were not entitled to claim this compensation.

These proposals were agreed to by the Committee on 4 October, and ratified by the National Advisory Committee on the 6th. On the 14th Dr. Addison wrote to Mr. Henderson that Mr. Lloyd George thought the proposals well suited for their purpose and had given instructions that they should be adopted, subject of course to any modifications which experience of their working might subsequently suggest.³

IV. Circulars L.2 and L.3.

The action of the Committee with regard to wages was not anticipated when it was appointed. The Munitions of War Act gave no power to the Ministry to issue general regulations concerning wages, but conferred the following strictly limited powers.

(1) Section 4 clause (2) provided that

“ Any proposal for any change in the rate of wages, salary or other emoluments of any class of persons employed in a controlled establishment, or of any persons engaged in its

¹ Memo. 14.

² Memo. 15a.

³ M.W. 58424, Memo. 24.

management or direction (other than a change for giving effect to any Government conditions as to fair wages or to any agreement between the owner of the establishment and the workmen which was made before 23rd June, 1915), shall be submitted to the Minister of Munitions, who may withhold his consent within fourteen days of the date of the submission: Provided that if the Minister of Munitions so directs, or if the Minister's consent is withheld and the persons proposing the change so require, the matter shall be referred for settlement in accordance with the provisions of the First Schedule to this Act, and the consent of the arbitration tribunal, if given, shall in that case have the same effect as the consent of the Minister of Munitions. If the owner of the establishment or any contractor or sub-contractor employing labour therein makes any such change, or attempts to make any such change without submitting the proposal for the change to the Minister of Munitions or when the consent of the Minister has been withheld, he shall be guilty of an offence under this Act."

The intention of this clause was obviously to prevent the excess profits of a controlled establishment from being dissipated by raising wages or salaries to the disadvantage of the Exchequer.

(2) Schedule II. clause 4 provided that

"Where the custom of a shop is changed during the War by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the time and piece rates paid shall be the usual rates of the district for that class of work." Clause 5 provided that "The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary re-adjustments shall be made so that they can maintain their previous earnings." Section 4 clause (4) provided for the enforcement of these provisions in controlled establishments. "The owner of the establishment shall be deemed to have entered into an undertaking to carry out the provisions set out in the Second Schedule to this Act, and any owner or sub-contractor who breaks or attempts to break such an undertaking shall be guilty of an offence under this Act."

These clauses provided adequate safeguards for the maintenance of standard time rates, where semi-skilled men displaced men of higher skill, and prevented the reduction of existing piece-work prices if male or female labour was introduced by dilution and paid by results. But they made no provision at all for the time rates to be paid to women, nor for piece-rates if no customary rate obtained for the job, owing either to the alteration of the method of manufacture or to the introduction of new processes.

It was probably anticipated that any difficulties which might arise in these connections would be adequately met either by the

Ministry's insisting on the payment of "fair wages,"¹ (in other words the standard district rate) or by an appeal to the Board of Trade for arbitration under Part I. of the Act. But the effectiveness of such machinery was impaired, so far at least as women were concerned, by the urgent and novel conditions to which the engineering and shipbuilding trades were subject. In these trades the wages of such women as were employed before the War were low and variable.² The problem of determining what was their district rate was in many parts of the country insoluble. Women did not enjoy the protection of custom; they were not organized in strong Trade Unions; nor could such organization be built up in an emergency, in which many women were being attracted to munitions work more by the idea of helping to win the War than by the necessity of earning a living. Some came from homes where maintenance was assured independently of their earnings; many were in receipt of separation allowances; others again had been thrown out of their regular employment. Moreover not only were strikes illegal, but Section 7 of the Munitions of War Act deterred a woman from leaving her employer to obtain better wages elsewhere. Consequently the fear which the Trade Unions felt lest their standard of living should be irretrievably lowered by the competition of cheap labour was natural and well founded. And it is not open to doubt that unless measures other than those provided by the Act had been taken to safeguard the conditions under which women should be employed on munitions work, very little progress would have been made with the dilution of skilled labour by the introduction of women. For apart from the dislocation and resentment which strikes would have caused, the success of dilution depended on the genuine co-operation of the skilled workmen in teaching the women and helping them whenever anything went wrong.

Apart from these reasons Mr. Lloyd George in his speech to a deputation of women on 17 July, 1915, had promised that there should be no sweated labour and suggested a minimum wage. "With regard to wages," he said, "so far as piece work is concerned, we have agreed that a woman should be paid exactly the same price as a man for any piece of work she turns out. . . . But Mrs. Pankhurst asked a little more than that. She wanted the same rate of wages, even for time work."

¹ Every contract with the Admiralty, War Office and Ministry of Munitions requires the observance of the following conditions in accordance with the resolution passed by House of Commons on 10 March, 1909 :—"The Contractor shall . . . pay rates of wages and observe hours of labour not less favourable than those commonly recognized by employers and trade societies (or, in the absence of such recognized wages and hours, those which in practice prevail amongst good employers) in the trade in the district where the work is carried out. Where there are no such wages and hours recognized or prevailing in the district, those recognized or prevailing in the nearest district in which the general industrial circumstances are similar shall be adopted. Further, the conditions of employment generally accepted in the district in the trade concerned shall be taken into account in considering how far the terms of the Fair Wages Clauses are being observed. . . . The Contractor shall be responsible for the observance of the Fair Wages Clauses by the Sub-Contractor."

² See interview with Workers' Union, 8 Sept., 1915. M.W. 67395.

MRS. PANKHURST: "I asked that because there are very grave complaints being made that women now working for private employers on munitions are being sweated."

MR. LLOYD GEORGE: "All these establishments are now going to be under Government control. It is quite impossible for us to go on without assuming practical control of all great establishments turning out munitions of war, and the Government will see that there is no sweated labour. But for some time women will be unskilled and untrained and they cannot turn out as much work as the men who have been at it for a long time. Therefore we cannot give the same time rate to them, but we can give them the same piece rate. Mrs. Pankhurst is perfectly right in insisting that whatever those wages are, it should be a fair rate of wages."

MRS. PANKHURST: "And fix a minimum."

MR. LLOYD GEORGE: "There should be a fixed minimum which would guarantee that we should not utilize the services of women merely in order to get cheap labour. That is really what you want."

The Sub-Committee on wages, Mr. Allan Smith, Mr. Kaylor, Miss Macarthur and Mr. Glynn West, met on 24 September, and drew up the following statement concerning women of 18 years and over:—

(1) "Where women are employed on time the minimum time rate shall be £1 per week.

(2) "Women shall not be put on piece work or on premium bonus systems¹ until sufficiently qualified.

(3) "Where women are prevented from working by breakdown or air raid or any cause beyond their control, the time so lost shall be paid for at the rate of 15s per week unless they are sent home.

(4) "Where women are employed on piece work they shall receive the same piece work prices as are customarily paid to men for the job.

(5) "Where women are engaged on premium bonus systems the time allowed for a job shall be that customarily allowed to men for the same job, and the earnings shall be calculated on the basis of the men's time rate.

(6) "On the system of payment by results equal payment shall be made for an equal amount of work done.

(7) "The above conditions do not apply to work recognized as women's work before the war.

(8) "The foregoing time rates are to be computed on the normal working week of the men in the district in question."

¹ Under a premium bonus system a base-time is allowed for a job and the worker is paid (a) his ordinary time rate for the actual time he spends on the job, and (b) a further sum if he completes the job in less than the base-time, consisting of a proportion of his time-rate—usually a half—calculated on the difference between the time allowed and the time spent. The base-time is, as a rule, calculated in such a way that an average worker can earn a quarter or a third over and above his ordinary time rate.

These conditions were however subject to one exception ; where women were employed in the place of skilled men, the women should be paid the same time rates as the skilled men.

On 27 September, the Sub-Committee met again to draft regulations on the lines laid down. Only Mr. Allan Smith and Mr. Kaylor were present. The following regulations were proposed for women of 18 years of age and over, and for girls under eighteen, who were engaged in the manufacture of munitions of war. A covering note stated that the regulations did not apply to work which prior to the War was recognized as women's work, and were "on the basis of the setting up of the machines being otherwise provided for."

(1) "Women employed on time, on work customarily done by men, shall be rated at a minimum of £1 per week reckoned on the usual working hours of the district in question for men in engineering establishments. This, however, shall not apply in the case of women being employed on work customarily done by fully skilled tradesmen, in which case the women shall be paid the time rates of the tradesmen, whose work they undertake. Overtime and night shift and Sunday and holiday allowances payable to men shall also be made to women."

Clause (2) reproduced clause (3) above with slight verbal changes. Clause (3) expanded clause (2) above by providing that the period of qualification on shell work should not as a rule exceed 3 or 4 weeks. Clauses (4) and (5) were the same as clauses (4) and (5) above.

(6) "Where the job in question has not hitherto been done on piece work or premium bonus system in the establishment the piece work price, or the time allowed, shall be based on a similar job previously done by men, on piece work or premium bonus system as the case may be.

(7) "Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece work price or the time to be allowed, the price or the time to be allowed shall be so adjusted that the women shall receive the same percentage over the time rate of the class of man customarily employed on the job, as such a man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

(8) "The principle upon which these regulations proceed is that on systems of payment by results equal payment shall be made to women as to men for an equal amount of work done.

(9) "Piece work prices and premium bonus basis times shall be fixed by mutual agreement between the employer and the woman or women who perform the work."

Clauses (10) and (11) prescribed that on piece work and premium bonus systems every woman's time rate as specified in clause (1) should be guaranteed irrespective of her earnings. Debit balances should not be carried forward beyond the usual weekly period of settlement.

(12) " Overtime and night shift and Sunday and holiday allowances shall be paid to women employed on piece work or premium bonus system on the same conditions as now prevail in the district in question for time work.

(13) " Piece work prices and premium bonus time allowances after they have been established shall not be altered unless the means or method of manufacture are changed.

(14) " All wages and balances shall be paid to women through the office."

Clauses (15) and (16) provided that these regulations should apply to girls under 18 years of age, except that 10 per cent. should be deducted for each year of age below 18 from the time rates specified in clauses (1) and (2).

The following general regulations were then added :—

(1) " These regulations shall apply for the period of the War, and shall not operate to the prejudice of either employers or workpeople in any discussion which may thereafter take place on any of the points raised therein.

(2) " Any female labour introduced in terms of these regulations shall first be affected by any necessary discharges after the War, and the employers shall at the conclusion of the War, unless the Government notify that the emergency continues, reinstate the working conditions formerly obtaining on the pre-war basis, and as far as possible, afford re-employment to their men who are at present serving with His Majesty's Forces.

(3) " The regulations shall not warrant any employer making such arrangement in the shops as will effect a permanent restriction of employment of any trade in favour of female labour.

(4) " Wherever feasible, female labour should be employed on the three shift system."

On 1 October, the Sub-Committee again met. Mr. Glynn West, who was present as well as Mr. Allan Smith and Mr. Kaylor, approved the regulations drawn up at the previous meeting.

Apart from its importance in relation to dilution, this document is a landmark in the history of women's wages. Though it directly applied only to women who were put on to what had previously been treated as men's work, it could not but effect the position of women engaged on work which before the War had been done by women. Though its application was expressly limited to the manufacture of munitions during the period of the War, standards so widely recognized are not likely to be readily abandoned ; and it may be asserted with confidence that the low and variable rates which were paid to women in the metal trades before the War are gone never to return. The fundamental principle of the regulations is equal pay for equal

work. Those who framed them had no doubt chiefly in view women engaged on repetition work and in the main shell work. The time rate of £1 a week was intended as a rule to be a probationary rate for women who would be put on piece work or premium bonus as soon as they were qualified. The men they were expected to replace were semi-skilled or unskilled. The possibility of a woman undertaking the work of a skilled tradesman was perhaps considered remote, though provision was made that in such an event she should be paid the time rate of the skilled man—an effective obstacle to the employment of women on skilled work. But it was not apparently anticipated that the skilled man's work might be split up, so that the women could undertake the easier or rougher portion of it. The omission to make express allowance for this case probably caused more trouble than any other point in the regulations. Neither was provision made regarding the wages to be paid during the probationary period while a woman was learning the skilled man's work, nor for the wages of women kept continuously on time work which had previously been done by semi-skilled men or apprentices in their second or third years. It was perhaps felt that the data for determining these rates were not available; possibly these questions were overlooked in the haste to embark on the process of dilution. But the fact that there was no explicit provision for time rates intermediate between the £1 a week and the skilled man's time rate produced serious delays and embarrassments, as the sequel will show.

On 1 October the Sub-Committee also drew up regulations regarding the employment and remuneration of semi-skilled and unskilled male labour on munitions work.

I. GENERAL.

(1) "Operations on which skilled men are at present employed but which by reason of their character can be performed by semi-skilled or unskilled labour, may be done by such labour during the period of the War.

(2) "Where semi-skilled or unskilled labour is employed on work customarily undertaken by skilled labour, the time rates and piece prices and premium bonus times shall be the same as customarily obtain for the operations when performed by skilled labour.

(3) "Where skilled men are at present employed they shall not be displaced by less skilled labour unless other skilled employment is offered to them.

(4) "Piece work prices and premium bonus time allowances after they have been established shall not be altered unless the means or method of manufacture are changed.

(5) "Overtime, night shift, Sunday and holiday allowances shall be paid to such machinemen on the same basis as to skilled men.

II. TIME RATINGS FOR THE MANUFACTURE OF COMPLETE SHELL AND FUSES AND CARTRIDGE CASES, WHERE NOT HITHERTO CUSTOMARY.

(6) "Where the manufacture of this class of munitions was not customarily undertaken prior to the war, the following regulations shall apply :—

- (a) Semi-skilled and unskilled men of 21 years of age and over, when engaged as machinemen on the above manufacture, shall be paid a time rate of 10s. per week lower than the time rate for turners, including war bonuses, engaged in the engineering trade of the district, but in no case shall the rate paid to such men be less than 28s. per week of the normal district hours. This rate also includes all war bonuses already granted.
- (b) Semi-skilled and unskilled male workers under 21 years of age engaged on machine operations shall be paid not less than the following rates as standard time rates per week of the normal district hours :—Age 20 and under 21, 22s. per week ; age 19 and under 20, 18s. per week, and 2s. per week less for each year of age under 19.
- (c) Where a semi-skilled or unskilled man of 21 years of age and over has had no experience previously of the operation he is called upon to perform, his starting rate shall be 26s. per week, which shall be paid during his period of training, but such period shall not exceed 2 months from the date at which he commenced work as a machineman.
- (d) The time rates payable to setters up shall be not less than as follows :—

Setting up of fuse-making machines—10s. per week over the current district time rate for turners.

Setting up of shell-making machines—5s. per week over the current district time rate for turners.

"These extras are in addition to any war bonuses which have been granted."

There were not the same urgent reasons for making these proposals as supported the recommendations concerning women's wages. The general regulations did little more than re-state what was contained in the Second Schedule of the Act. Operations on shell had prior to the War been normally carried on by semi-skilled or unskilled men, and it would not have been difficult to secure reasonable rates where such manufacture was not customary either by insisting on the Fair Wages Clause or by arbitration under Part I. of the Act. But arbitration was slow,¹ and difficulties had already arisen, such as that reported² by Mr. Glynn West to the National Advisory Committee on 18 August, owing to the demand of the local Trade Union representatives that the rates for shell turning should be determined by the

¹ See *Parliamentary Debates* (1915), *H. of C.*, LXXVII. 827.

² See Chap. III., Sect. III., p. 34.

machines on which the operations were performed, not by the class of work done on them. It was probably felt therefore that it would save both friction and delay to fix the rates for such work by general regulation. And similar reasons no doubt were urged in favour of prescribing the rates for setting up shell and fuze making machines.

Finally the Sub-Committee suggested that (a) in any regulations issued by the Central Committee a clause should be inserted providing that any questions arising regarding the subject matter of the regulations should be referred to the Central Committee for decision ; (b) in the regulations relating to the employment of female labour a clause should be inserted providing that before female labour is employed in the highly skilled branches of the Engineering Trade, the proposal of the employer in question should be submitted to the Central Committee for approval.

These recommendations concerning wages were approved by the Committee on 4 October, appended to their Interim Report, and forwarded to the Minister for his consideration.

On 14 October, Dr. Addison acknowledged the proposals.¹ Mr. Lloyd George recognized the great value of the detailed recommendations at which the Committee had arrived in assisting him in dealing with the question. But the Minister had no power to promulgate any binding regulations on those matters, except, of course, with respect to the conditions to be observed in National Factories. He proposed, however, to circulate the recommendations forthwith to the organizations representing the parties concerned for their information, and with a view to eliciting criticism and suggestions. Pending the result of this step, the recommendations of the Committee would be provisionally accepted as far as establishments were concerned for which the Ministry was directly responsible.

If this suggestion had been accepted by the Committee, the recommendations would presumably have been submitted to the principal Trade Unions concerned, the Engineering and Shipbuilding Employers' Federations, and the Committee on Production. Had this course been taken, the drafting of the recommendations might have been improved, and provision might have been made for some of the difficulties which subsequently embarrassed the Ministry ; but it is not improbable that a variety of incompatible amendments would have been suggested and it is certain that serious delays would have occurred. Moreover it might fairly be argued that the composition of the Committee gave adequate representation to all the chief interests involved. The Committee therefore decided to press for the adoption of their proposals without delay ; in their opinion no scheme for the dilution of skilled labour was practicable, unless the question of wages was first decided. Mr. Henderson accordingly replied² to Dr. Addison on 14 October stating that the Committee were engaged in the preparation of further plans for the development of their scheme

¹ Memo. 24.

² Memo. 25.

of dilution, which they were unable to complete for submission to the Minister until the question of the Regulations referred to was finally settled. "The Committee, moreover, feel that the arrangements which the Minister has already instituted for the dilution of skilled labour cannot be carried into effect until the question of these Regulations has been satisfactorily disposed of." An interview with Mr. Lloyd George was therefore requested, before the Regulations were circulated to the Organizations mentioned.

The interview took place the following day but no decision was reached. On 18 October however Dr. Addison wrote to Mr. Henderson stating that the Ministry was prepared, in order to expedite the Committee's arrangements, to circulate as recommendations their proposals regarding women of 18 years and over, and semi-skilled and unskilled men. The Minister would himself adopt these recommendations in Munitions Factories for which the Ministry was responsible. The schedules of wages proposed for young persons (males below the age of 21 and females below the age of 18) presented so many points for criticism that the Minister was not disposed to circulate them until further advice had been taken. "With respect to the rate for women I think that this should be circulated as a definite rate not as a minimum rate. What employers are asking is how much they are to pay and we must be able to give a definite answer to the question."

The Committee met on the same day and agreed to omit the clauses relating to the wages of women under 18 years of age (the deputation at the interview had already agreed to the provisional omission of the schedule relating to the payments to youths and boys). Clause (1) was amended by the omission of the words "a minimum of." The recommendations as revised for issue by the Minister of Munitions¹ were then agreed to as a whole. The only change of importance made other than those just mentioned was the omission of the clauses,² constituting the Central Committee referee on all questions concerning the subject matter of the recommendations, and requiring its approval before women could be employed in the highly skilled branches of the Engineering Trade. In place of the former it was provided that "any question which arises as to the interpretation of these recommendations shall be determined by the Minister of Munitions." The second Schedule of the Act was also substituted for the General Regulations³ appended to the Circular on Women's Wages.

V. Procedure for Effecting Dilution.

The discussions of the Committee concerning the method by which dilution should be introduced into the workshops revealed differences of policy which were never quite harmonized. On the one hand it was held that since the Minister and the Executives of the Trade Unions had agreed on the principles to be carried out, nothing more was needed but vigorous administrative action by the departmental

¹ The recommendations were issued as Circulars L.2 and L.3. See Appendices IV. and V.

² See p. 63.

³ See p. 60.

and local officers of the Ministry in enjoining employers and workmen to take the requisite measures for giving effect to these principles. Even the provision in the Second Schedule to the Act, that due notice of any changes proposed should be given to the workmen concerned along with an opportunity for local consultation with them or their representatives, was considered an illogical and unhappy insertion in as much as it suggested that practices restricting production or employment, which had been declared illegal by the Act, might be made a matter for argument and negotiation.¹

On the other hand it was felt that the Act would either remain a dead letter so far as dilution was concerned or else provoke resentment and obstruction, unless the policy of the Ministry was explained authoritatively in the principal centres of industry and the objections of the workmen were met by argument and persuasion. With this end in view it was urged that the Minister should himself visit Sheffield, Newcastle and Glasgow and meet there both the employers and the shop-stewards, inspect the factories and make himself familiar with the nature of the operations carried on. Deputations of the Central Committee should accompany him and remain in the district after he had gone to deal with any difficulties which might arise in conjunction with the local Labour Advisory Boards. Until argument and persuasion had done their work the activities of the officers of the Ministry should be strictly subordinated to the guidance of the Central Committee or its local deputations.

On 6 October a Sub-Committee, consisting of Mr. Henderson, Mr. Brownlie, Mr. Duckham, Mr. Rey and Mr. Allan Smith, was appointed to supervise the examination of the returns required by the Circular C.E.1, and to draft a scheme of procedure which would give effect to the proposals submitted to the Minister on 4 October. After considerable discussion their scheme, which embraced a number of suggestions already made by Mr. Beveridge,² was embodied in a memorandum³ approved by the Committee and sent to Mr. Lloyd George on 25 October.

The principle of dilution was that no skilled man should be employed on work which could be done by semi-skilled or unskilled male or female labour. This principle was not applicable in all establishments in the same degree. In shops doing repetition work it could be applied generally, but only to a limited extent in marine engineering or repairing works. A special survey of workshops would be necessary by fully qualified technical inspectors, specially conversant with the employment of semi-skilled and female labour, who could advise the Ministry how far dilution should take place and assist employers in the process.

If it was clear from the returns made on the C.E.1 and Z.8⁴ forms that skilled men were available for enrolment and transfer, the Labour

¹ This provision was at first omitted from the Bill, but subsequently inserted at the urgent request of the representatives of the Trade Unions.

² See pp. 43-45.

³ Memo. 34.

⁴ See Chap. IV., Sect. II.

Exchange manager, acting as Labour Supply Officer of the Ministry, should visit the works and arrange for their enrolment. He would report the action he had taken to the local Advisory Board, and bring before them for further action any cases in which too few men had enrolled. If the workmen objected to dilution the matter should be reported to the Ministry, which should, if the question was purely local, remit it for settlement to the Labour Officer in conjunction with the local Advisory Board. If it seemed advisable, a representative of the Board would accompany the Labour Officer to the works to secure enrolment.

If the C.E.1 and Z.8 returns did not afford the means of deciding how far dilution was practicable, the case should be referred to the Superintendent Engineer, the Labour Officer or a special investigator from the Ministry. The objective of his visit would be to clear the way for subsequent enrolment and transfer.

Transfers of Munition Volunteers should be undertaken locally by the Labour Supply Officers to firms indicated by the Ministry as having urgent claims. In determining the urgency of any firm's requirements the Ministry should have regard among other considerations to the extent to which dilution had already taken place in the establishment in question. Men would be enrolled on the existing War Munition Volunteer terms. Disputed questions concerning subsistence allowance and other payments should be referred to the Labour Advisory Boards at joint meetings with the Labour Supply Officers.

The Central Committee should be kept posted by the Local Officers, through the Department, of all difficulties and questions of importance, arising out of the dilution of skilled labour. Executive action by the Ministry should be subject to the advice and assistance of the Central Committee, in so far as it affected questions of policy relating to dilution. The services of the local Labour Advisory Boards should be fully used wherever dilution might cause local difficulties.

This scheme for co-ordinating the activities of the Officers of the Ministry with the advisory functions of the Central and Local Committees and for decentralizing the transfer of Munition Volunteers by devolving the work as far as possible on the Labour Exchange Officers, was accompanied by a number of practical suggestions concerning the hours of labour, superintendence, accommodation and occupations suitable for women. The following procedure for giving effect to the provisions of Schedule II., paragraph 7 of the Act was also recommended :—

- (1) " The workmen in the shop in which a change is to be made should be requested by the employer to appoint a deputation of their number, together with their local Trade Union representative, if they desire, to whom particulars of the proposed change could be explained.

(2) "At the interview the employer, after explaining the change proposed and giving the date when it is to come into operation, should give the deputation full opportunity of raising any points they desire in connection therewith, so that if possible the introduction may be made with the consent of all parties.

(3) "Should the deputation be unable at the interview to concur in the change, opportunity should be given for further local consultation when representatives of the Trade Unions concerned might be present.

(4) "It is not intended that the introduction of the change should be delayed until concurrence of the workpeople is obtained. The change should be introduced after a reasonable time, and if the workpeople or their representatives desire to bring forward any question relating thereto they should follow the procedure laid down in Part I. of the Act.

(5) "It is not desirable that formal announcement of the proposed change should be put on the notice board of the shop until intimation has been given as above to the men concerned or their Trade Union representative."

It was also recommended that before female labour was employed in the highly skilled branches of the engineering trades, the proposal should be submitted to the Ministry of Munitions for approval, and that where females were employed, they should be supervised by a forewoman, who should act as intermediary between the workers and the shop foreman or manager.

These recommendations were adopted by Mr. Lloyd George and embodied in Circular L.6, which was sent out from the Ministry early in November.¹ It is to be regretted that arrangements for obtaining the record of departures from working conditions in accordance with paragraph 6 of Schedule II. were not made in connection with the above recommendations. It would not have been difficult to insist that records of the changes decided on should be drawn up and signed at the meeting by the employer and the representatives of the workmen and that copies should be sent immediately to the Ministry. This procedure would have gone far to secure the observance of paragraphs 6 and 7 of Schedule II., the consultation of the workmen, the making of agreed records and the prevention of misunderstandings. But the Ministry had already sent out early in October Circular C.E.2, enjoining the observance of paragraph 6 and prescribing a form of record which has not proved satisfactory and was for a long time neglected.

In the meantime Mr. Henderson had written on 22 October to Mr. Lloyd George urging him to institute a campaign in Sheffield, Newcastle and Glasgow and especially to meet the shop-stewards and the local representatives of the Trade Unions. Unfortunately the Minister was unable to follow this suggestion until the end of the year.

¹ See Appendix VI.

VI. Agreements with Engineering Trade Unions.

On 27 October the Committee met the Executive of the Amalgamated Engineers. On behalf of his Society, Mr. Brownlie stated that they could not be satisfied with the mere recommendation by the Minister of the Committee's proposals concerning wages to the favourable consideration of employers engaged on munitions work. More than a recommendation was needed to ensure the payment of the rates proposed. After discussion Mr. Beveridge suggested that the Minister would only ask the co-operation of the Trade Unions in removing local objections to dilution where the employer undertook to pay the wages recommended in the Circulars L.2 and L.3. A number of obscure or doubtful points in L.2 were then explained to the satisfaction of the Executive. Finally they objected that they could not accept clause 6 in L.3 as it stood, because the rates specified in sub-section (a) conflicted with the rates which had already been claimed in Oldham and Manchester by the Society and were the subject of negotiation. The Committee agreed that the right to demand higher rates there should be reserved. The following resolution¹ was then drawn up by the Executive and unanimously accepted by the Committee:—

“The Executive Council of the Amalgamated Society of Engineers, having considered Circulars L.2 and L.3 and the Report to the Minister of Munitions on the dilution of skilled labour presented on 25 October, 1915, accept the conditions laid down therein and are willing to co-operate in securing their application subject to the following reservations; (a) that in order for the owners of controlled establishments to secure the co-operation of the Ministry of Munitions (Labour Supply Committee) and the Amalgamated Society of Engineers in introducing the scheme for the “Dilution of Labour,” it shall be incumbent on such employers that they must observe the rates and conditions of labour as governed by Circulars L.2 and L.3. (b) Nothing in L.3 relating to wages shall prejudice the Society's right to raise the wages references which for Manchester and Oldham are already placed on the Agenda for Central Conference with the Engineering Employers' Federation.”

The resolution was signed by Mr. Henderson on behalf of the Labour Supply Committee, and by Mr. Brownlie and Mr. Young on behalf of the Amalgamated Society of Engineers. On 29 October, Mr. Beveridge wrote that it had been approved by the Minister.²

On 4 November the Committee met the Executive Councils of the Steam Engine Makers' Society, the United Machine Workers' Association and the Society of Amalgamated Toolmakers, Engine Makers and Machinists. After discussion and explanation a resolution similar to the above with the exception of clause (b) was adopted and signed.

¹ Memo. 36.

² M.W. 57436.

VII. Organization of Dilution Department.

In the meantime steps had been taken to secure an executive officer to carry out the policy of Dilution. On 10 October, Sir H. Llewellyn Smith wrote to the Minister :—

“ The operation of following up C.E.1 by personal visits of Local Officers needs to be organized, pushed and controlled by a strong department at headquarters under an Officer of high standing, and if Mr. West's department is too hard pressed to devote the necessary energy to this work, a new appointment is probably necessary. The Officer undertaking this work should also control the inspection of establishments carrying on private work and should be responsible for all negotiations with employers who raise difficulties as to sparing men. He would deal with all matters relating to the economical utilization and distribution of labour on munitions work.”

It was at first intended to set up a Dilution Department alongside of the Labour Supply Department. For this purpose efforts were made to obtain the services first of Sir Guy Granet, then of Sir Eric Geddes. But these did not succeed. In the meantime on 30 October, Mr. Beveridge had written to the Secretary of the Admiralty asking that Lieut.-Commander J. B. Adams should be placed at the disposal of the Ministry. Prior to the war he was in the service of the Board of Trade as Divisional Officer of Labour Exchanges, and obtained in that capacity much special experience of great value in industrial questions and in particular in dealing with employers and workmen. “ The Minister desires to have his services in connection with the important and difficult task of securing the introduction of semi-skilled and unskilled labour to the fullest possible extent in factories engaged on the production of munitions. Upon the success of these efforts depends entirely the possibility of obtaining an adequate supply of munitions. The Minister is satisfied that Lieut.-Commander Adams possesses special qualifications for this work.” On 4 November the Secretary to the Admiralty replied that Mr. Adams had been demobilized from 31 October, in order that his services might be at the disposal of the Minister of Munitions.

Finally on 22 November it was announced that the Minister of Munitions had appointed Lord Murray of Elibank to act temporarily and in an honorary capacity as Director General of Recruiting for Munitions Work for the purpose of giving executive effect to the policy of the Ministry of Munitions with regard to organizing the supply, and securing the most effective and economic distribution of skilled and unskilled labour, both male and female, in munition factories. Mr. C. F. Rey was appointed Assistant General Secretary and designated by Sir H. Llewellyn Smith to act for the time being under Lord Murray for the purpose of supervising the various branches of work of the office which fell within the scope of the new department. Mr. J. B. Adams would be Deputy Director of Recruiting for Munitions Work and would be in charge of dilution, allocation of labour and inspection.

VIII. Further Proposals concerning Women's Wages.

After this re-organization of the Labour Supply Department, the effective control not only of the administration of dilution but of the general policy to be pursued passed out of the hands of the Committee. But it continued its labours, and drew up several documents relating to wages, which, though not adopted at the time, became ultimately with modifications in detail part of the accepted policy of the Ministry.

Early in November the Sub-Committee on wages drew up recommendations¹ concerning the employment and remuneration of women of 18 years of age and over, who were engaged on munitions work of a class which before the War was recognized as women's work in districts where such work was customarily carried on. Work however, in filling, cartridge making and fuse assembling factories was excluded for special treatment. The recommendations were strictly confined to the period of the War, and subject to the observance of the Second Schedule of the Act, and in so far as they affected machine work pre-supposed that the setting up of the machines was otherwise provided for. It was prescribed that the time rate should be 4d. an hour for every woman, whether on time, piece or premium bonus, and even if she were prevented from working by breakdown, air raid, or any other cause beyond her control. Piece work prices should be fixed by mutual agreement between the employer and the woman performing the work, and should be such as to enable a woman of average ability to earn at least one third more than the specified time rate. Existing piece work prices which did not conform to this provision should be adjusted accordingly. For the rest, the regulations concerning debit balances, overtime and other allowances, the alteration of piece work prices or premium bonus times, the method of payment and questions of interpretation were the same as those contained in Circular L.2.

These recommendations were approved by the Committee on 15 November, and submitted to the Minister by Mr. Henderson two days later.² At first sight (he wrote) the subject of these recommendations might appear to be less directly connected with the Committee's work than the problems which had hitherto been dealt with by them. It was, however, found as a result of experience that a statement dealing with this aspect of the wages of women was necessary if women were to be employed in large numbers in Government factories and controlled establishments on work not provided for by Circular L.2. "I hope you will give your consent to the issue of these recommendations by the Ministry in the same form as the recommendations contained in Circulars L.2 and L.3, as I am convinced that pronouncements of this character will prove to be necessary if we are to succeed in effecting the employment of women on a large scale."

¹ Memo. 43.

² M.W. 62172/3.

In the meantime an agreement¹ had been reached on 16 November between the Midland Employers' Federation and the Workers' Union, raising the wages of female munition workers over 21 years of age to 16s. a week, 15s. for women of 19 and 20, 13s. for women of 18, and 11s., 9s., 8s., and 7s. for girls of 17, 16, 15 and 14 respectively. A "munition worker" was defined as a person covered by the provisions of the Munitions of War Act, 1915, and the Orders in Council. It was agreed that where the above day rates did not give to the day worker any advance, an increase equal to that recently given to boys and youths, should be granted and regarded as a war wage, namely an advance of 1s. on day rates for girls under 17 years of age, 1s. 6d. for those between 17 and 19, and 2s. for women of 19 and over. There should be no general advances on piece work prices, but in the fixing of a piece work price it was expected that the price would yield not less than 25 per cent. over the day rates to competent workers. The terms of the agreement were to remain in force and unaltered during the period of the War. A similar agreement was made with the Birmingham District Engineering Employers' Federation.

These agreements secured an advance of 4s. a week for women over 18 years of age, and advances varying from 1s. to 3s. for girls, above the scale of wages agreed upon on 7 July, 1913, between the Midland Employers' Federation and the Workers' Union. At a meeting of the Labour Supply Committee, Mr. Duncan stated that he considered the new agreement very favourable and it could not have been reached in any district where women were less well organized.

Mr. Beveridge did not support the recommendations of the Labour Supply Committee.² The wage, 4d. an hour, was not apparently put forward as a minimum but as a fixed wage to be paid throughout the country. The wages actually paid to women varied very widely. In Scotland the rates at Messrs. Nobel's, Singer's and Armstrong Whitworth's exceeded the rate recommended; important firms in England were paying 3d. an hour or less; the Birmingham agreement, which covered the largest field, afforded 3s. to 5s. less than the rate proposed. There was no merit in securing uniformity throughout the country for all women engaged on munitions work. The only ground on which the recommendations could properly be advanced was the necessity of preventing sweating. But in the present state of the labour market sweating was unlikely; 4d. an hour was unnecessarily high to prevent it; individual cases of sweating could be dealt with by arbitration under Part I. of the Munitions of War Act and should be so dealt with. If the Ministry of Munitions undertook to fix women's wages generally, that would only divert to other purposes energy required for work more directly connected with the output of munitions.

On 5 December, Sir H. Llewellyn Smith wrote³ that the question of promulgating the recommendations of the Committee must now

¹ M.W. 67395.

² M.W. 62172/3.

³ M.W. 62172/3.

be considered in the light of the Amending Bill, "as it seems certain if we put them forward as recommendations, the Board of Trade will refuse to arbitrate on any question of wages for women munition workers."

The proposal was consequently suspended. In addition to the difficulties just indicated, there was the certainty that any attempt to enforce the recommendations, for which the Amending Bill provided the necessary powers, would involve awkward problems and be met by considerable opposition. For no sharp line could be drawn in many trades between women engaged on women's work in connexion with munitions and women not so engaged. The application of the provisions of Circular L.2 pre-supposed the dilution of male labour and the Ministry was pledged not to urge dilution except for munitions work. But though some work recognized as women's work before the War was undoubtedly munitions work, such as the manufacture of fuses and small arms ammunition, other work was doubtful in as much as a part only of the output was taken in connexion with munitions, for example nuts and bolts, but that part could not be earmarked, and even if it could be earmarked, the payment of different rates in the same shop was unfair and impracticable. Consequently either women not making munitions would be brought under the Order, or women making munitions would be left out. The employers would naturally fight against the former alternative; the latter would be opposed by the women's societies.

On the other hand the demand for action was serious. The Ministry of Munitions had committed itself to the position that £1 a week was a fair time rate for a woman engaged on munitions, by issuing Circular L.2 as a recommendation. The rates of 11s. or 12s. a week, paid by some manufacturers of munitions, were therefore indefensible, if they were not also inequitable. Further it could not but arouse a keen sense of grievance that women turning shell should earn £1 a week from the day they entered the factory, and considerably more as soon as they were qualified for piece work, whereas the women making fuses perhaps in the next shop after years of experience were earning many shillings a week less, sometimes not half as much. Finally the requirement of leaving certificates under Section 7 of the Act took away the one effective means for raising the rates of the worst establishments and resulted in individual hardships, which, whether numerous or not, caused a widespread sense of injustice and a strong feeling of resentment. Thus a deputation of the Workers' Union on 8 September referred¹ to 4 women who left one firm which (it was said) paid 2½d. an hour to go to another firm in the same district paying 7d. an hour for similar work. The latter firm was fined and the women were sent back. Even if this was not the whole story, it sufficiently answered to the facts, to bring about a situation which must in time have become intolerable. Subsequently in spite of all the difficulties of attempting to regulate the wages for women's work, the Ministry was compelled to deal with the matter, and on 6 July,

¹ M.W. 67395.

1916, issued Order 447 which differed from the recommendations of the Labour Supply Committee in as much as it prescribed a time rate of $4\frac{1}{2}$ d. instead of 4d. an hour, and make it clear that the rates specified were minima, not maxima.

On 15 November the Wages and Dilution Sub-Committees were amalgamated, and a standing Sub-Committee was constituted of which the members were Messrs. Brownlie, Duckham, Kaylor, Rey, Smith and West, and Miss Macarthur. On 1 December the standing Sub-Committee, in accordance with a request from the Ministry, reconsidered the scales of wages for boys and youths under 21, and for girls under 18, which had been struck out of the recommendations circulated as L.3 and L.2. It was decided not to recommend any special rates for the former; with respect to the latter it was proposed¹ that the terms of L.2 should apply, provided that (a) women under 18 years of age employed on time on work customarily done by men should be rated as follows:—between 17 and 18, at 17s. a week, between 16 and 17 at 15s. a week, under 16 at 13s. a week; (b) if prevented from working by breakdown or other cause beyond their control, they should be paid at the rate of three-fourths of the time rates specified.

The effect of these recommendations was to reduce the rates originally proposed by 1s. a week for girls between 15 and 18. But since the new scale did not go below 13s., a girl under 15 would receive 1s. a week more than before. It was not, however, likely that girls under 15 would be put on to do "men's work," and it was certainly not desirable to encourage the attempt.

The recommendations were approved by the Labour Supply Committee on 7 December, and submitted to the Ministry for its approval. On 12 December, Sir H. Llewellyn Smith wrote that the proposals seemed to him not unreasonable, granted the principle of L.2, provided that they were confined to Great Britain and not extended to Ireland. After comparison with existing rates Mr. Beveridge thought the scale unduly high and preferred to wait until the new Tribunal proposed by the Amending Bill was set up, and could consider this matter in conjunction with L.2. Finally on 26 December, Sir H. Llewellyn Smith wrote:—"My inclination is to leave the scale recommended by the Committee as it is but to accompany it with a strong note discouraging the employment of girls under 16 on munitions work where it is possible to get older workers. But in any case this cannot be settled until the Bill has become law." The proposal was accordingly suspended. At last on 6 July, 1916, the Ministry issued Order 456 which directed the payment for time work on the scale originally proposed by the Labour Supply Committee.

On 9 November, Dr. Addison invited the Wages Sub-Committee to prepare recommendations for the new Filling Factories, and to attend a conference with representatives of their Boards of Management on the 11th. Memorandum 44 was accordingly drawn up,

¹ Memo. 56A. M.W. 62172/5.

discussed at the conference and after amendment approved by the Committee on 15 November and submitted to the Minister. Its main provisions were :—

(1) Women employed in buildings in which are carried on the operations of Fuse Filling, Grenade and Bomb Filling, Assembling Q.F. Ammunition, Making up of B.L. Cartridges and filling in blocks of 18 pr. shell, shall be employed on time and paid 5½d. per hour during the first 4 weeks and 6d. per hour thereafter. Women employed in the Melting and Running of High Explosive into shell shall be employed on time and paid 6½d. per hour during the first 4 weeks and 7d. per hour thereafter. The rates for chargewomen and for forewomen employed in connection with the above processes shall be 7d. and 8d. per hour respectively.

(2) Women employed on piece work shall be rated at 4d. per hour, except where they are employed on work customarily done prior to the war by male labour (*i.e.*, boys and youths) in which case they shall be rated at 5d. per hour. Piece work shall be worked wherever practicable, but is not permitted on the operations specified in clause (1).

(3) Where women are employed on time in departments other than those specified in clause (1), their rates shall be ½d. per hour higher than the rates specified in Clause (2).

(4) Chargewomen and forewomen, not employed in danger buildings, shall receive 5½d. and 6½d. per hour respectively.

The other clauses concerning payment for stoppages, fixing of piece work prices, guaranteed time rate, etc., followed the lines laid down in the other memoranda. A normal week of 48 hours was also recommended, and the payments for overtime, night shift and Sunday work were specified.

These proposals were not approved by the Ministry of Munitions ; nor was a scale of rates subsequently prescribed for the various kinds of work done in the Filling Factories. Order 447 secured ½d. an hour above the ordinary time rates for women and girls employed in danger zones—a wage substantially lower than the rates recommended by the Labour Supply Committee. Col. Strange, however, sent memorandum 44 to all the National Filling Factories on 8 December, “in order that arrangements made by them should approximate to these recommendations.”¹

On 25 November, Mr. Beveridge suggested² to Mr. Henderson that his Committee should discuss with representatives from Woolwich the interpretation of Circular L.2 in reference to the women whom it was proposed to introduce into the Arsenal on work hitherto done there by men or boys. Three classes of women would be concerned, namely those employed as gaugers or examiners, and in the manu-

¹ Apparently Col. Strange sent out the unrevised copy of Memo. 44, in which the rates in clause (1) were ½d. an hour lower than the rate specified in the final copy.

² M.W. 64182.

facture of fuses and small arms ammunition. Strictly interpreted L.2 did not apply to such work, since it was normally reckoned women's work elsewhere. Moreover it was objected that the application of L.2 would involve the guarantee of the time rate to piece workers, which had always been resisted on principle at the Arsenal on account of the difficulty of dismissal, and the payment of three-fourths of the day rate for stoppages, whereas the practice at Woolwich was to pay the full day rate in such an event.

On 1 December the standing Sub-Committee discussed the matter with representatives from Woolwich, who agreed that the provisions of L.2 would be acceptable to the management of the Royal Factories, with the exception of the guaranteed time rate of £1 a week. The Sub-Committee, however, could not concede this point; and they were also of opinion that women in the Chief Inspector's Department should be excepted, and a special scale of wages devised for them.

On 6 December the Committee endorsed the opinions of the Sub-Committee and reported their decision to the Ministry.

On 13 December, however, Dr. Addison¹ gave two rulings on the interpretation of L.2, which rendered that circular inapplicable to the Royal Factories. He decided that "men" could only mean males over 18 or 19 years of age, and consequently the terms of the circular did not apply to work hitherto done by boys, such as the manufacture of small arms ammunition at the Arsenal. Moreover the plural "districts" in the preamble of L.2 meant that the predominant practice of the country as a whole was the proper test whether or not an operation, such as fuse-making, came within the scope of the circular.

The Committee attempted to controvert these interpretations (without much show of reason), but Dr. Addison did not take up the challenge until 4 February, when he adhered to his previous ruling. In the meantime the Committee were unable to make any progress, although they continued their negotiations with the authorities at Woolwich concerning women employed as gaugers or examiners. On 10 March, the matter was formally taken out of the hands of the Committee, and on the 11th special rules were drawn up by Mr. J. C. Smith and Mr. Dannreuther for women and girls in the Royal Ordnance Factories, which secured for them conditions similar to those of L.2, though somewhat more elastic, with the exception of the guaranteed time rate.² These rules were submitted to the special tribunal for their advice before ratification, then withdrawn on the ground that the advice of the tribunal might embarrass it in the exercise of its judicial functions, and finally adopted in the course of June, 1916.

IX. Trade Union Amendments to Munitions of War Act.

The representatives of the Trade Unions were not satisfied that the arrangement made on 27 October was adequate to secure the

¹ M.W. 58424/4.

² M.W. 64182.

observance of Circulars L.2 and L.3. For there was nothing to prevent dilution from being carried out on other terms, so long as the co-operation of the Amalgamated Engineers or the Labour Supply Committee was not required. Accordingly when a draft of the Amending Bill was submitted to the National Advisory Committee for their consideration, they decided among other things to press the Government to take power to establish standard rates for women in controlled establishments and to enforce the recommendations of the Ministry of Munitions concerning wages and conditions of labour.¹

On 17 November the Committee met Sir H. Llewellyn Smith, who promised that these proposals would be considered. Accordingly a clause was drafted, which proposed to insert the following paragraph in the second Schedule² :—

“Where female labour is introduced to perform work which before the war was ordinarily performed by male labour, any directions given by the Minister of Munitions as to the rate of wages or conditions of employment for such female labour shall be complied with.”

This clause provided for the enforcement of Circular L.2 or other directions relating to women engaged on men's work in controlled establishments, but it did not touch women employed on women's work. Before the second reading, however, the clause was remodelled so as to cover all women employed on munitions work.

Towards the end of November the Amalgamated Society of Engineers drew up a number of amendments³ to the Munitions of War Act, of which the following concerned dilution. They proposed to add a third schedule (1) enforcing in controlled establishments the rates and conditions of labour recommended in Circulars L.2 and L.3, (2) prescribing the procedure for making changes in working conditions recommended in Circular L.6 A Clauses 1-3,⁴ with the proviso that “no variation of or departure from the existing rules shall be made while the matter is still under discussion,” (3) prescribing the conditions recommended in Circular L.6, Sections C.F. and H., concerning the introduction of women into the highly skilled branches of the engineering trade, their supervision and employment on day shifts.⁵

They also proposed a new sub-section under Section 15 of the Act, providing for the election in all munition areas of local joint committees, equally representative of employers and employed, which should report to the Central Labour Supply Committee all cases in which either side of the local committee considered that the rules limiting profits were being evaded, or Government work was subordinated to private work or otherwise obstructed, and should enforce in all munitions establishments the payment of the Trade

¹ M.W. 58604/13. ² M.W. 58604/24. ³ A.S.E. *Journal*, Dec., 1915, pp. 26-31.

⁴ See pp. 66, 67. ⁵ See p. 67, Appendix VI.

Union district rates of wages. "No matter within the jurisdiction of a local munitions tribunal shall be brought before a munitions tribunal, general or local, until it has been referred to the local committee for settlement, and the local committee has failed to secure a settlement, always providing that this provision shall not apply to differences arising under Part I. of the Act." "Subject to the provision of Schedule III., all proposals to abrogate or vary any Trade Union regulation or workshop custom, or to import new classes of labour, or to utilise semi-skilled or female labour on automatic or semi-automatic processes shall be brought before the local committee, and shall come into operation only with the sanction of the local committee or the Minister of Munitions (Central Labour Supply Committee) if the local committee fail to agree."

The following reasons were given for these proposals :—

"(a) The Government, by the creation of the Central Labour Supply Committee has recognized the need for securing the co-operation of employers and employed in the organization of munitions work. It is, however, useless to expect that this co-operation will bear fruit unless it is made local as well as national. What is needed is close co-operation between the employers and the workmen in each munitions centre. This can be secured only by means of local joint committees equally representing both parties. Such local co-operation would be far more effective than the attempt to organize all munitions work under the central authority of the Ministry of Munitions.

(b) The war has been the cause of considerable changes in the organization of industry. Many of these changes profoundly affect the position of workers, and there can be no guarantee that they will work smoothly unless the workers are allowed a share in administering them. This should be the chief work of the local committees, which should be entrusted with the task of adapting industry to the new needs and of directing its conduct under the new conditions.

(c) Committees chosen by the Minister of Munitions do not command the same confidence as committees directly elected by those whom they are to represent.

(d) It is commonly believed that firms supposed to be on Government work are still putting such work aside in favour of private work, and the limitation of profits and other provisions of the Act are being evaded. If the local committees have power to draw the attention of the Minister of Munitions to such cases, much would be done to remove the present discontent.

(e) It is impossible for a central authority to enforce in every establishment fair wages and conditions. This can be done only through local bodies with full knowledge of the facts.

(f) Local knowledge and local Trade Union confidence are no less necessary in deciding on all questions relating to Trade Union rules and workshop customs. This can be secured only by giving the Trade Unions a recognized position and status in dealing with such questions.

(g) The Act provides for a schedule of departures from Trade Union or workshop rules made since it came into operation. It is necessary to provide further for a schedule of similar departures made during the earlier period of the war. Such a schedule can be made adequately only by local bodies with full knowledge of the facts, and only such bodies will be able to enforce the restoration of pre-war conditions when the war is over."

In order to give effect to the last proposal, the following amendment of paragraph 6 of Schedule II. was suggested :—

" A schedule of all departures from Trade Union regulations and workshop practices shall be kept by the joint secretaries of each local committee under the supervision of the committee, and copies of such schedules shall be published as soon as practicable in the Board of Trade Labour Gazette.

This schedule shall include all departures made since the outbreak of war.

The local committees shall enforce the restoration of pre-war practices after the war, or the Union or Unions concerned may appeal to the Board of Trade, which shall have power to enforce the restoration of pre-war practices.

The above provisions shall also apply to National Factories during the war, which shall be under the direct management of the local committee, or, where no local committee exists, under the management of a joint committee representing equally the Trade Unions of the workers employed and the Ministry of Munitions."

On 30 November a conference, summoned by the National Advisory Committee at the Central Hall, Westminster, was attended by the Minister of Munitions and the representatives of 55 Trade Unions, whose members were employed in the production of munitions. After the Minister had addressed the meeting, various amendments to the Munitions of War Act were considered, among which those referred to above were approved for the most part unanimously. The Conference also approved the following amendment,¹ proposed by the National Federation of Women Workers :—

" It shall be within the competence of the Minister of Munitions with regard to any establishment to which either Part II. or Section 7 of the principal Act applies to prescribe by Order minimum rates of wages, allowances and conditions of employment or premium bonus for female workers, either for particular kinds of work, particular industries, particular

¹ M.W. 58604/39.

localities or particular establishments ; and it shall be obligatory on the employer of any such establishment immediately to bring into conformity with the Order any rates, allowances or conditions obtaining in such establishments, which are below such prescribed minima ; and any failure therein shall be an offence under the principal Act."

On 2 December Dr. Addison and Sir H. Llewellyn Smith met representatives of the Engineering and Shipbuilding Employers' Federations to ascertain their opinion on the proposals of the Trade Unions. The employers strongly objected to the proposal that there should be a composite committee which would act as a preliminary body to sift cases which might otherwise come before the Tribunal. The employers had no time to spare for any more committees and tribunals. Their first business was to secure output and not to sit on various bodies to enquire into grievances and offences. Nor did they approve of the proposal to fix minimum wages for women. It was an attempt under the guise of the Munitions Act to fasten the Trade Boards Act on the Engineering Trade, an attempt which had so far been resisted successfully by the employers. If there were any real difficulties as to wages, the question could always be determined under Part I. of the Act and the Fair Wages Clause. A minimum wage would necessarily involve the raising of other wages in the factories and would ultimately increase the cost of living and fall upon the nation. It was, however, suggested that a proposal, which limited the minimum wage to shells, fuses and filling, would be less objectionable. With respect to the new Schedule, the employers strongly opposed the provision that there should be no variation of, or departure from, the existing rules while a question was under discussion. On the whole, they had no objection to the terms of Circular L.6, but they saw no reason why it should be made statutory.

On 3 December the employers saw Mr. Lloyd George and repeated their objections.

X. Munitions of War (Amendment) Bill.

The Amending Bill, which was presented on 9 December, and read for the second time on the 15th, went far to meet the claims of the Trade Unions concerning clearance certificates, Munitions Tribunals, and other matters ; but it only covered one of the demands relating to dilution, in that power was taken by the Minister of Munitions to give directions as to the rate of wages, hours of labour or conditions of employment of female workers, employed on or in connection with munitions work in any establishment to which the provisions of Section 7 of the principal Act applied. This clause not only gave power to enforce Circular L.2 in controlled establishments, but (as the National Federation of Women Workers requested) to make Orders concerning women and girls, whether employed on men's work or women's work, who required clearance certificates before they could obtain new employment. And in moving the second reading Dr. Addison drew¹ special attention to the women, engaged

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2077.

on munitions work not previously done by men, who (he said) were at least 80 per cent. of the women making munitions; these women were not protected by the principal Act, yet being tied down for at least six weeks they could not use the normal means of improving their position, although in a considerable number of cases they were very improperly paid.

In committee on 17 December, Mr. W. C. Anderson¹ proposed to give the Minister similar powers to deal with the wages and conditions of labour of semi-skilled and unskilled men. But this proposal was resisted by Dr. Addison, who maintained that it would overwhelm the Ministry with work that was unnecessary in as much as these men were amply protected by the principal Act. He challenged those who supported the proposal to bring forward a case in which a semi-skilled man on munitions work was not earning substantially larger wages than before the War. No strong argument was adduced in favour of Mr. Anderson's amendment, and after a short discussion it was negatived without a division.²

The other claims made by the Amalgamated Engineers in connection with dilution were not pressed in Committee, although in the debate on the second reading Mr. Anderson threw out as a suggestion that the workpeople should have a real control over the conditions of labour.³ A committee, composed of representatives of the workmen and the employers, able to come together face to face, would remove much friction.

It is not improbable that some such scheme would have been realized by administrative action, if not by the Act, if it had been pressed vigorously by the representatives of Labour. For Lord Balfour and Mr. Macassey had said⁴ in their report :—

“Machinery is required for settling the more important and acute disputes between foremen and workmen. It is essential in the interests of discipline that the lawful authority of the foreman be upheld, and the Trade Unions, we believe, prefer that the employment and dismissal of men should be a matter for the foreman. But it must be recognized that under the conditions of the Munitions of War Act situations between foremen and workmen are created which did not arise before the Act and relations, as a consequence, become frequently strained to breaking point. We are satisfied it would much conduce to the efficient and harmonious operation of the Act if some procedure were created for determining quickly such disputes. Before the Munitions of War Act, piece prices were determined by mutual agreement between employers and workmen. Under the Act, although that position is nominally continued, a workman may in practice be compelled, for a time, to work at piece prices to which he objects. Works rules should provide for determination locally of any dispute in regard to piece prices, either under Part I. of the Act or in some other prompt and effective manner.”

¹ *Ibid.* 2417.

² *Ibid.* 2420.

³ *Ibid.* 2116.

⁴ Cd. 8136, p. 4.

Moreover, Mr. Lloyd George showed¹ in the debates on the Bill that he favoured the formation of joint committees to deal with complaints and differences on the spot, and he told the employers on 3 December, that in his opinion such a committee as the Amalgamated Engineers had asked for would save a good deal of friction.

On the other hand the employers were, as a body, opposed to the setting up of these joint committees. A more difficult obstruction was the fact that the Trade Unions could not agree upon a basis of representation. Large societies, radically affected by the policy of dilution, in particular the Amalgamated Engineers, demanded proportionate representation. But this neither the small societies, nor those whose members were less seriously concerned in dilution would concede. For this reason no local Labour Advisory Boards had been set up on the Clyde or Tyneside, and the Engineers would have nothing to do with the Board set up at Barrow. Finally these Boards had so far done little or nothing to justify their existence.

The last objection, however, to the new scheme though plausible was superficial. For the Local Advisory Boards were composed only of representatives of the workmen; their functions were limited to reporting difficulties and grievances to the officers of the Ministry or the National Advisory Committee; they had no power to settle anything, and they were expressly enjoined not to take up any question with the employers. On the other hand the committees, proposed by the Amalgamated Society of Engineers, and favoured by Mr. Lloyd George, were joint committees of employers and workmen, whose function was to decide on the spot, if possible, all local differences.

From the fact that no serious effort was made to press this proposal either in Parliament or at the interview of the Engineers with the Prime Minister and Mr. Lloyd George on 31 December, it can

¹*Parliamentary Debates* (1915), *H. of C.*, LXXVI. 2116.

Mr. Anderson: If you can devise machinery by which workpeople would have a real control in regard to labour conditions, you would remove a great deal of friction. Many points could be settled if they were dealt with by some committee composed of representatives of workmen and of employers able thus to come together face to face.

Mr. Lloyd George: Hear, hear.

Mr. Anderson: I am very glad to have a convert in the Minister of Munitions, and I hope that something more will be done in that direction.

Parliamentary Debates (1916), *H. of C.*, LXXVII. 854.

Mr. Lloyd George: My hon. friend suggested there should be a committee which should sift these cases. Will he believe it, that I have been urging that very thing? Would he like to know what is the difficulty? He ought to know. The difficulty is not with the Government, not with the employers, but with the Trade Unions themselves. The moment you do it, you get one Union feeling that it has not got sufficient representation. They say "Why should Union A, which has nothing whatever to do with dilution, have a word to say in settling a question for us who suffer by dilution?" . . . Nothing would suit me better than if a joint committee of employers and workmen could sit together to sift and examine these cases and take the responsibility of the courts and of the Ministry of Munitions.

only be inferred that although some individuals believed that these joint committees would safeguard the interests of the workmen in the administration of the Munitions Act, increase output by diminishing friction, and perhaps prevent a wide spread conflagration, they could not obtain sufficient support from the rank and file of Trade Unionists to overcome the obstructions in their way and to give an assurance that if the necessary machinery was set up it would work.

The introduction of clause 6 by which the Minister took power to give directions as to women's wages and conditions of labour complicated¹ the arrangement under Part I. of the principal Act for settling by reference to the Board of Trade all differences concerning rates of wages, hours of labour or the terms and conditions of employment on the manufacture of munitions. Unless some special provision were made, an Arbitrator under Part I. of the Act might give an award discrepant from the direction of the Minister under clause 6, both award and direction being binding under heavy penalties on employers and employed; workpeople or employers dissatisfied with a direction of the Minister might report the matter as a difference to the Board of Trade; or an employer might apply to the Board of Trade for arbitration while the workpeople at the same time applied to the Minister for a direction. Inter-departmental arrangements might no doubt prevent the worst form of clashing, such as contrary decisions on the same case; but unless complete co-operation were provided for, it would be possible and indeed almost certain that the Minister and an Arbitrator would give conflicting decisions on cases so similar as to produce confusion.

Moreover the Chief Industrial Commissioner reported that the issue of Circular L.2 had made it almost impossible for his department to arbitrate on any question relating to the wages of women on munitions work, because the Minister's recommendations were always put forward in argument as establishing a new standard for women. For the moment, therefore, the provisions of Part I. of the Act were practically in abeyance so far as women munition workers were concerned.

To meet these difficulties the Government put down² a clause in Committee on 17 December, constituting a special arbitration tribunal to advise the Minister on any question submitted to it as to what directions he should give concerning female workers, and to deal with such differences, reported under Part I. of the Act and referred to it by the Board of Trade, as related to women's wages and conditions of labour. Mr. Lloyd George did not explain the constitution or purpose of the tribunal, and was rather impatient of attempts to elicit information.

In reply to Mr. Leif Jones who pressed for an assurance that in practice the Minister would act only through the Tribunal, Mr. Lloyd George said³ that for decisions on great questions of

¹ M.W. 58604/95.

² *Parliamentary Debates* (1915), *H. of C.*, LXXVI. 2490.

³ *Ibid.* 2492.

principle the Government as a whole must accept responsibility. A non-sweating wage for women was not a question for a tribunal. "In a case of that kind instead of putting the matter before the tribunal, I would confer with my colleagues and say whether the present wages were or were not fair. If we thought it necessary, the matter could be referred to arbitration . . . but I do not think there ought to be a compulsory reference to the tribunal where we can decide it." Mr. Anderson¹ wanted to know more about the constitution of the tribunal; there was no guarantee that any representative of the working people would be included in it; he did not want to see it made up wholly of officials. In the end the clause was passed on the understanding that it could be reconsidered if necessary on report.

On report accordingly Mr. Anderson moved² the omission of the clause in order to obtain a fuller statement of what it meant. He hoped it would not be a purely official tribunal. The permanent officials had great qualities, but also in these matters very grave defects. They did not always know exactly what the conditions of labour were. Would the Labour Supply Committee constitute the tribunal? It was vital to have Trade Unionists on it. He hoped it would include one or two women representing the women of the country and dealing with the questions which affected the employment and payment of women. Mr. Lloyd George agreed³ that the tribunal ought to be thoroughly acquainted with the conditions of women's labour. He was doubtful whether it ought to be the Labour Supply Committee, though that Committee would of course be consulted about it. He had not yet made up his mind as to the kind of tribunal or its size or from what class it should be drawn. It was very difficult to get the type of mind which worked well on a tribunal of that character.

Subsequently the clause was amended⁴ so as to cover also a tribunal to deal with any questions which might arise out of the decision to make circular L.3 mandatory.

XI. A.S.E. Deputation to Prime Minister.

The Amalgamated Society of Engineers were not satisfied with the concessions which had been made; probably the rank and file did not see how far the Government had gone to meet them. A Conference was therefore summoned by the Council for 30 December at the Westminster Palace Hotel. After two days' discussion the following resolution was carried unanimously :—

"That this Conference, representative of 205,000 operative engineers, is of opinion that the suggested amendments of the Amalgamated Society of Engineers, endorsed by 55 Trade

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2494.

² *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 903.

³ *Ibid.* 904.

⁴ *Ibid.* 906.

Unions at the Conference on 30 November, 1915, are essential as an element of justice in the administration of the Munitions of War Act, 1915, and should be incorporated in the Amended Act if we are to maintain our influence with our members in securing the high standard of production required. Further, that a committee representative of the conference be instructed to wait upon the Prime Minister and the Minister of Munitions and intimate the decision of this conference as the basis of our continued co-operation."

On 31 December the deputation waited upon the Prime Minister and Mr. Lloyd George at 10 Downing Street. Mr. Asquith took strong exception to the veiled threat in the last clause of the resolution; the delegates were somewhat taken aback at this. But Mr. Button explained that no threat was intended; they were, however, finding great difficulty in persuading their members to accept the scheme of dilution. The skilled men wanted some real guarantee that their position would not be prejudiced, if they were removed to Government Arsenals and other men took their places. The Minister of Munitions had indeed given his guarantee concerning L.2 and L.3; but he was taking legal powers in regard to women only, not to men. It was a fair presumption that his guarantee was only sufficient in so far as it had legal support. That was the real stumbling block. Mr. Brownlie added:—"We are very anxious to see that the semi-skilled and unskilled men coming into the shops shall receive the rates of wages set out in this circular, not so much in the interests of the semi-skilled and unskilled but in the interests of the highly skilled men."

In reply to a question whether he could give a case in which an unskilled man, introduced into a controlled establishment, had been refused the rates recommended in L.3, Mr. Brownlie admitted that he could not. In fact, as Mr. Lloyd George remarked, there were no grievances, because there were very few cases in which the agreement to co-operate in dilution had been carried out. But, he asked, suppose the Prime Minister saw his way to assent to their request, would they be any further on the way towards dilution? "We have had an agreement since March, and it really has not been carried out. You will all admit that. We simply cannot produce the stuff unless you do it. If we are to be faced say three weeks after this Amending Bill with a fresh demand from other districts, we should get no further. It has not arisen through the Executive's fault. You have played the game right through, but you have men behind you who put forward fresh demands. They say, 'We are not going to do it, unless you do so and so,' and then we are confronted with another difficulty. Say we concede this, then there may be a third demand. We never seem to get a firm agreement."

The delegates then raised a number of questions concerning clearance certificates, munitions tribunals, local committees, and the control of railway shops, some of which were met by the Bill,

others involved misconceptions which were explained, and the rest were not pressed.

Then the Prime Minister returned to L.3. It was vital that dilution should take place. Mr. Lloyd George could not carry on his work efficiently and meet the necessities of the War without it. Nor could the Chancellor of the Exchequer. It must be applied wholeheartedly and with the full consent and co-operation of Societies like the Engineers. To get the output required was all important, and it should be domestic not foreign. The obligation to pay such countries as America in the shape of exports or gold was most serious. The manufacture of munitions at home on a great scale was an incalculable gain whether they looked to military efficiency or financial stability. Mr. Brownlie agreed.

PRIME MINISTER: "But in spite of the Agreement made last March unfortunately this process of dilution has been most sparingly adopted."

MR. LLOYD GEORGE: "And it has been fought in every works."

PRIME MINISTER: "I am not bringing any charge against the Executive."

MR. LLOYD GEORGE: "It has not been fought by the Executive; it has been a guerilla fight."

PRIME MINISTER: "The Executive have had difficulties with their constituents, like other people, and no doubt it is a very difficult thing to persuade men who regard what I may call the priorities and privileges of skilled labour as almost Gospel, to forgo for the time being those privileges and admit unskilled and semi-skilled men into a class of work which skilled men have been in the habit of doing. They have a fear—one which is, perhaps, not altogether unnatural—that when the War comes to an end the re-establishment of the old conditions will be impossible, and that all these elaborate safeguards which have been built up by generation after generation of Trade Unionists for the protection of their members will be found to be undermined. I think that is really what is at the bottom of it, is it not?"

MR. BROWNLIE: "Yes."

PRIME MINISTER: "I suspect that is the feeling, and I agree it is one which it is difficult to eradicate in a moment or even in a month. The only way is...by the Unions exerting all their force to remove these suspicions and to encourage the men, and indeed, as far as they can, I will not say coerce, but bring every influence they can to bear upon them under the stress of this great national necessity to consent to this temporary process, which is absolutely necessary for the proper conduct of the War. I do not think you differ from me in anything I have said so far. I believe you feel it as strongly as we do, and that it is your duty just as much as it is ours."

"To come back to this Circular L.3. It was agreed to, and, as I gather, if it were observed and carried out by the employers, you would agree that the process of dilution had been properly safeguarded, and that the interests which you represent were

not compromised by the substitution, to whatever extent it has to take place under the so-called process of diluting semi-skilled or unskilled labour with skilled labour. What I understand you to ask is that in this Amending Bill the Ministry of Munitions should be given statutory powers to enforce the provisions of the same in controlled establishments.... Although I see very great difficulties in one way or another, I should be disposed myself to acquiesce in an amendment carefully framed on those lines, provided that I could get from you an assurance that this would settle the whole matter. By 'settling the whole matter,' I mean putting an end, once and for all, to this long series of... demands and grievances, which, up to this time, as you must all agree, have hindered the carrying out of the Agreement of last March. It has not been effectively carried out. As regards large parts of the country, it has not been carried out at all.... Nine months have lapsed and this is a matter of absolutely vital national necessity.

"The other points which you have mentioned are really all points which we have met you upon, or which are so subsidiary that they are not worth quarrelling about. But provided we can get from you an assurance that, if you are given a safeguard (as you regard it) for your protection, you will say that the Agreement made in March will now be put into active operation, and, as far as you can do it, universal operation, and that the country will secure, partly through your agency and certainly with your co-operation, the supply, which is absolutely indispensable to it, of the kind of labour, unskilled or semi-skilled, or by whatever epithet you describe it, without which the fabrication of munitions and the provision of the necessities both for the Army and for the Navy cannot go on, I feel disposed to suggest that the Minister of Munitions might make this concession.... Only one other word: I want to impress upon you most earnestly the vital importance of carrying this Agreement out and carrying it out thoroughly."

MR. BROWNLIE replied:—"I have not listened to the statement you have made without being moved. I am sure I only express the feelings of my colleagues when I say we fully appreciate the manner in which you recognize our difficulties in regard to the dilution of labour. Our difficulties are great and manifold in consequence of many diverse interests.... I said earlier in the evening that the Executive Council feels itself in a much stronger position to-day than it has done at any period during the past nine months. The Conferences we have held have carried the whole of our amendments, and the most important is with regard to Circular L.3.... If you can meet us in the manner you have indicated, our difficulties will be eased considerably, and everyone here will be able to deal with the question in the manner you have desired in your speech. I can say that without fear or hesitation, judging from the spirit manifested at the Conference to-day."

The Prime Minister then asked Mr. Lloyd George's opinion.

MR. LLOYD GEORGE: "I will tell you my view. There are very serious objections from the point of view of the Board of Trade and of

us, but I would not hesitate for a moment in saying that the course you have recommended is a thoroughly wise one, provided we get to a real end of this deadlock. It does involve an addition to the cost of producing munitions, and now that we are limiting profits that falls upon the State. But still that is better than producing them in America, where we should have to pay a good deal more. Therefore, from the financial point of view, it would be quite a good bargain. . . . I am rather sorry the Conference has dispersed. I should have infinitely preferred that the Conference had been alive, so that Mr. Brownlie could have gone there and put before them the proposal made by the Prime Minister and said, 'Do you agree or do you not? If you agree, the Prime Minister has directed the Minister of Munitions to put an Amendment down on Monday for Tuesday.' If it is really a bargain, I should on Monday, acting upon those instructions, put it down.

"You do not mind my speaking frankly. I know your reasons and you know you are getting very big concessions for your people, but what I am afraid of is that you will say, 'Yes, we will accept this,' and then your men begin again. They do not like dilution, and therefore they are always trying to find some sort of objection to it. They will find another and we shall be no nearer the end. If so, I shall have to put another proposal before the Prime Minister to deal with the situation. That is a ghastly thing to contemplate. It is infinitely better for the Government that it should pay even this big price and get the matter settled on these terms. But I want to know that it is settled, and then I can put it down on Monday. Otherwise I might find myself drawing another draft upon the Exchequer and getting nothing in return. I do not know whether it is possible for you to get your men to agree to this and authorize you to come to me and say, 'Yes, we will settle on the Prime Minister's proposal.' If you do that, I should have my amendment and we can get it down."

MR. BUTTON replied :—"We can do that. We can do what the Prime Minister and yourself have suggested. We have come on behalf of the Conference to make proposals on this and other points, this being the main point. We are saying to the Government, if you desire our co-operation on the question of dilution of labour—our whole-hearted co-operation in all centres up and down the country—you can have it at this price which you are now offering. I do not want to use commercial terms, but you understand my point. I think it would be possible, if you would allow us to talk amongst ourselves for a moment or two. Three of the most important, if not the three most important districts in our Society, are on the Deputation to-night, namely, the Tyne, the Clyde and London, and I think we would be in a position, if you will give us this guarantee, to sign a document to that effect."

The following resolution¹ was then agreed upon :—

"That we, representing the A.S.E. National Conference, having heard the statements and pledges of the Prime Minister and the Minister of Munitions, decide to accept on behalf of

¹ M.W. 58604/89.

the Conference and membership of the Society the scheme of dilution, and to co-operate actively therein, provided that the Government pledge itself to incorporate in the Bill the power to enforce the rates of pay and conditions of labour as set out in document L.3 as well as L.2 in controlled establishments."

Signed on behalf of the Conference Committee.

JAS. T. BROWNLIE, Chairman,
ROBERT YOUNG, Gen. Secretary.

In accordance with this Agreement, the Bill was recommitted¹ on 4 January, 1916, and a clause introduced empowering the Minister of Munitions to give directions as to the rate of wages, hours of labour, or conditions of employment of semi-skilled and unskilled men employed in any controlled establishment on munitions work being work of a class which, prior to the War, was customarily undertaken by skilled labour, or as to the time rates for the manufacture of complete shell and fuses and cartridge cases in any controlled establishment in which such manufacture was not customary prior to the War.

XII. Transfer of Wages Questions from Committee to Tribunals.

The Amending Bill received the Royal Assent on 27 January. On 7 February, Dr. Addison invited the Labour Supply Committee's comments on the names suggested for the Tribunals to deal with the wages of women and semi-skilled or unskilled men. The Committee asked for an interview, at which they submitted that the composition of the Women's Tribunal did not satisfy the condition laid down² by Mr. Lloyd George on 4 January, that it should be in thorough acquaintance with the kind of labour referred to it. In their opinion the Tribunal should include a man and a woman, cognizant respectively of the conditions of the skilled workmen and the women affected. Subsequently on 14 February they suggested the names of Mr. F. S. Button (A.S.E.) and Miss Susan Lawrence (Women's Trade Union League), which were accepted by the Ministry. The Ministry also followed their suggestion that the other Tribunal should be increased by two members, one acquainted with the skilled trades concerned and the other with the employers.

On 28 February it was reported to the Committee that Mr. Macassey and Mr. Allan Smith had been invited to serve on both the Women's and the Men's Tribunals, Mr. E. Aves, Mr. F. S. Button, Mrs. Streatfeild and Miss Lawrence on the former, and Mr. J. C. Ward, Mr. C. Duncan and Mr. W. H. Hutchinson on the latter.³

The formal minutes of appointment were issued on 8 March, Mr. Macassey being appointed Chairman of both Tribunals.

On 28 February the Orders came into force by which the provisions of Circulars L.2 and L.3 were applied compulsorily to specified

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 820-833.

² *Ibid.* 904.

³ Cf. M.W. 88272.

establishments. It had been suggested that these circulars should be submitted to the new tribunals with a view to amending their form (the Government was pledged to their substance); but this proposal, if it was ever entertained seriously, was set aside on account of the urgency of the demand for the Orders. Thus on 21 February, Mr. J. C. Smith reported¹ to the General Secretary that unless the guaranteed time-rate of £1 a week for women on men's work was made statutory, there would be an extensive strike in Manchester before the end of the next week. Whatever might be thought of a flat national rate, the £1 a week had caught the imagination of women workers and it was vain to argue the point.

On 1 February, Mr. Henderson wrote the following letter to Mr. Lloyd George:—

“The Munitions Labour Supply Committee have been considering the application of Circular L.2 to the Royal Factories and the Inspection Department, Woolwich, and on 6 December they made provisional recommendations to the Ministry upon this subject. They have been informed that there are now 3000 women working at Woolwich on a temporary rating, and that preparations are being made for the engagement of women at Enfield. They strongly desire, therefore, to present final recommendations with regard to the rates to be paid to women working in the Royal Factories or in the establishments controlled by the Inspection Department. They feel unable to do so, however, until a decision is arrived at on certain points in the interpretation of Circular L.2, which have arisen since the recommendations were made on 6 December, and until it is clear what the effects of the Munitions of War (Amendment) Act will be upon the work they have been doing with regard to the wages of semi-skilled and unskilled male labour and of women employed upon work not previously recognized as women's work. The points of interpretation to which I refer arise in connection with the word ‘men’ in Section 1 of L.2 and the words ‘custom of a district.’ The Committee have had before them letters from Dr. Addison on these points and Dr. Addison has suspended his final reply pending the consideration of the whole situation with regard to the wages of women as altered by the new Act.

“In view of Dr. Addison's statement and of their anxiety that the wages of women employed at Woolwich should be placed on a basis consistent with their previous recommendations as soon as possible, the Committee desire me to ask you for a statement of the present position under the Munitions of War (Amendment) Act. In particular they desire me to draw your attention to Sections 6, 7 and 8 of the Act and to say that they will be glad for information with regard to the steps which will be taken to apply and interpret Circulars L.2 and L.3 in the future. A further question arises as to the

¹ M.W. 92329.

status of the Committee in view of the powers conferred on the Minister by Section 8 of the Act and on this point I should much appreciate your views."

On 29 February, Mr. Henderson, at the request of the Committee, again wrote to Mr. Lloyd George asking for a reply to his letter of 1 February, with reference to the Committee's position, and enquiring what action the Minister proposed to take concerning Memoranda 43, 44 and 56a, of which the first and second had been submitted to him on 17 November and the third on 7 December.¹

On 10 March, Dr. Addison replied to Mr. Henderson:—"Mr. Lloyd George has handed me your letter of 29 February and your earlier letter of 1 February, in which you raise certain questions as to the future work of the Munitions Labour Supply Committee. As you are probably aware, the two special arbitration tribunals provided for under Section 8 of the Munitions of War (Amendment) Act, 1916, have now been appointed and will be ready to commence work immediately. The functions of these tribunals include not merely arbitration on differences referred to the Board of Trade, but also the giving of advice on any questions referred to them by the Minister, as to what directions as to wages and similar matters should be given by him under Sections 6 and 7 of the Act. These Sections cover substantially all the wages questions which have been dealt with by your committee in the past and which in a great measure arise out of the application of the memoranda upon which your committee has advised us. Having regard to this, it does not appear that it will be necessary to trouble your Committee with wages questions in future. So far as these cannot be settled departmentally or by our Commissioners, they will, of course, be referred for advice or settlement to one or other of the tribunals under Section 8.

"Mr. Lloyd George proposes at an early date to refer to the appropriate tribunals the question of issuing any direction as to wages of women on munition work other than those covered by Circular L.2.

"....As regards the position of the Government factories and dockyards and the railway workshops in respect to the recommendations in Circulars L.2 and L.3, the Minister will confer with the Government Departments concerned. The Royal Ordnance Factories have been declared formally as controlled establishments under the Munitions of War (Amendment) Act.

"The constitution of the arbitration tribunals under Section 8 does not, of course, affect the work of the Labour Supply Committee in other directions. In this connection I have to say that Mr. Lloyd George has recently appointed Sir George Croydon Marks, M.P., to be an Executive Commissioner to give effect to labour dilution in such establishments and districts as he may from time to time direct. It appears to be desirable that Sir George Croydon Marks should keep in touch with your Committee and for that purpose should be

¹ See pp. 70, 73, 74.

free to attend its meetings and to receive the agenda, minutes and other documents. Mr. Lloyd George hopes that this course will be acceptable to your Committee.

“During the inauguration of the scheme of dilution of labour necessarily a great mass of work was undertaken by your Committee in elaborating details and in formulating the principles which should be adopted and Mr. Lloyd George is deeply conscious of the value of the Committee’s labours. He anticipates that, for the reasons indicated above, the amount of work which will fall to your Committee in the future will necessarily be less than it was, but he feels sure that he may continue to rely upon your assistance in all matters falling within the Committee’s scope and upon any others on which he may seek your advice.”

APPENDICES.

APPENDIX I.

(CHAPTER I., p. 4).

Form of Enrolment W.M.V.1.

WAR MUNITION VOLUNTEERS.

FORM OF ENROLMENT.

Office of Issue.....

Occupation Classification No.	Code No. of Office of Issue.	Volunteer's Enrolment No.
-------------------------------------	------------------------------------	---------------------------------

Name of Volunteer, Surname

Christian Names

Address

Age Married or Single.....

Occupation.....

Trade Society, and Branch (if any).....

Nature of work in which engaged.....

Present Wages

Name of present Employer.....

Address.....

Department in which engaged.....

Work desired. (State clearly the department or sub-division of work
for which you desire to be enrolled.)Qualifications for desired employment. (State what experience you
possess which qualifies you for the particular work for which you
desire to be enrolled. Give names of employers with length of
service and description of employment.)

Also willing to take work as.....

Qualifications for such work.....

In accordance with arrangements which have been made with the Minister of Munitions by the National Advisory Committee acting on behalf of the Trade Unions, I undertake with the Minister of Munitions to accept employment on making munitions of war in such controlled establishments as may be named by him, and to remain in such employment during the war for so long as required (not exceeding six months in all), subject to the conditions set out on this form.

1. The rate of wages paid will be that of the district to which the workman is transferred, provided that if in any case the workman proves that this is less than the rate he was receiving before enrolment, he shall be entitled to receive such higher rate.

2. The workman will receive over and above his wages the following allowances :—

(a) If brought from a distance beyond that which he can reasonably travel daily, railway fare at the commencement and completion of the work for which transferred ; and, where necessary, subsistence allowance at the rate of 2s. 6d. per day for seven days per week. It is clearly understood that the subsistence allowance is not intended to enable any workmen to make a pecuniary profit.

(b) If within daily travelling distance (exceeding half an hour each way) the value of workman's tickets and one hour's travelling time per day at the rate of time and a half.

(c) If within daily travelling distance (not exceeding half-an-hour) the cost of workman's tickets.

Subsistence and travelling allowances will be paid by the firm employing the workman, with the wages.

3. The workman may volunteer for a further period of employment after the completion of the period for which he is required in the first instance.

4. Any workman transferred from employment under this undertaking shall, if found suitable, be guaranteed employment during the war for a period not exceeding six months.

I agree that any breach of this undertaking may be dealt with by a Munitions Court, consisting of a Chairman appointed by the Minister of Munitions, with Assessors equally representing employers and workmen, which may, if it thinks fit, impose a fine not exceeding £3.

(Signed).....

In the presence of.....

Officer in charge of Munitions Work Bureau.

APPENDIX II.

(CHAPTER II., p. 19).

Form of Enrolment R.C.1.

	Occupation Number	Enrolment Number

FORM OF ENROLMENT FOR MUNITIONS WORK
OF MEN TO BE RETURNED FROM THE COLOURS.

Name, Surname

Christian Name.....

Regl. No. Rank Coy.

Regiment Corps.....

*(the exact unit to be given, and, in the case of the Territorial Force,
whether the first or second line)*

Rate of Army Pay, including allowances }
(other than Separation Allowance) }

Home Address

Age Married or Single.....

Occupation in Civil Life.....

Trade Society and Branch (if any).....

Nature of Work in which engaged before Enlistment.....

Rate of Wages received before Enlistment.....

Name and Address of last Employer before Enlistment.....

Department in which engaged in service of last Employer.....

Work desired (state clearly the department or subdivision of work
which you would be willing to undertake).....

Qualifications for Work you are willing to undertake (state what experi-
ence you possess). Give names of Employers before Enlistment
with length of service and description of employment.....

Also willing to take Work as.....

Qualifications for such Work.....

In accordance with arrangements which have been made by the Minister of Munitions with the Army Council, I am prepared to undertake work on the production of munitions of war in such establishments as may be named by him, and for so long as required by him, in accordance with the following conditions :—

- (1) I am to return to Military Service as soon as I cease to be employed on the production of Munitions of War in any establishment named by the Minister, and to report myself forthwith to my Unit for Military Duty.
- (2) The emoluments to which I am entitled will be as follows :—
 - (a) My ordinary Army emoluments until the date on which I take up civil employment.
 - (b) Thereafter wages earned in civil employment at the rate of the district to which I am transferred, or my Army Pay and allowances, whichever is the greater.
 - (c) In case in civil employment I am unavoidably separated from my family or dependants, Separation Allowance (less the allotment portion made by me) will be issued to my wife, etc., under the usual conditions, as a clear addition to any other earnings or emoluments.

Signed

In the presence of

Officer in charge of Munitions

Work Bureau at

REMARKS (for official use only).

This form when completed should be at once returned to the Ministry of Munitions

(R. C. DEPT.),

6, WHITEHALL GARDENS,

LONDON, S.W.

APPENDIX III.
(CHAPTER IV., p. 53.)

Circular C.E.1.

MINISTRY OF MUNITIONS OF WAR,
6, WHITEHALL GARDENS,
LONDON, S.W.
October, 1915.

TO ALL CONTROLLED ESTABLISHMENTS.

SIR,

I desire to call your attention to the necessity of making the most effective and economical use possible of all available machinery and skilled labour. From information reaching me I have reason to believe :—

- (1) That all available machinery has not yet been utilised and that a great deal of that which is in use is not being fully employed ;
- (2) That skilled workmen are being employed in too large a proportion to semi-skilled or unskilled workmen ;
- (3) That in some districts night shifts are not properly organised.

It is necessary that immediate steps be taken to remedy this state of affairs, and employers are urgently requested to make every effort to utilise both men and machines to the fullest possible extent.

Having regard to the limited number of skilled workmen who are available, or who can possibly be made available, for Munitions work, even after utilising all possible means of increasing the supply, I am convinced that it will be quite impossible to satisfy the urgent present and prospective demand for such workmen unless their employment is strictly limited to work for which their special skill is essential, and which cannot be performed in whole or in part by semi-skilled or unskilled labour, either of men or women.

In particular it should be noted that in the manufacture of shells and fuses skilled labour is required only for the purpose of supervision and the setting-up of machines, and is not required for the actual machine operations. Even for supervision and setting-up, the skilled labour required is the experience of a specialist in this work and not necessarily in every case the skill of a fully-trained mechanic. It may readily be obtained from a competent machinist who has been in the habit of setting-up his own machine. Further, for efficient supervision and setting-up it is as a rule unnecessary to have more than one skilled man to every ten machinists.

The Treasury Agreement of March 19th provided, subject to certain safeguards, for the suspension of Trade Union restrictions on Munitions work which might interfere with or hinder maximum output ; and the Munitions of War Act gave the force of law to this suspension so far as regards Controlled Establishments, and at the same time embodied the safeguards of the Treasury Agreement in the Second Schedule of the Act, which provides protection, in the matter of the wages and conditions of employment, for the workmen involved in these changes.

As you are aware, it is provided by Section 4 (3) of the Act that all rules, practices and customs tending to restrict production and employment shall be suspended in Controlled Establishments. In order to give effect to this provision of the Act, it is necessary that a rule under Section 4 (5) shall be posted, and it is desirable that this rule should be substantially in the form of Rule 3 of the Model Rules,¹ which are set out on the enclosed leaflet. [*Not reprinted here.*]

It should, however, be pointed out that, in addition to posting this rule, it will be necessary, in accordance with the 7th paragraph of the Second Schedule, to give notice to the workmen concerned of any specific alteration in conditions which it is proposed to adopt, and to give opportunity of local consultation if desired.

I wish at the same time to call your attention to the necessity of adhering strictly to the other conditions set forth in the Second Schedule, which is printed on the enclosed leaflet.² [*Not reprinted here.*]

With a view to giving effect to the policy set out above, you are required :

- (1) To fill up in duplicate the enclosed schedule under Section 11 of the Munitions of War Act and return the two copies in the enclosed envelope at the earliest possible moment, and in any case by Wednesday, October 13th ;
- (2) To take immediate practical steps in accordance with the conditions described above to give effect to these proposals in your establishment : that is to say, to replace skilled men wherever possible by less-skilled labour, men or women ; to use the skilled men so released in order to work night-shifts or work other machines in your establishment ; and to make the surplus available for transfer elsewhere.

For the latter purpose you should immediately report to the above address when you are likely to have any skilled men available for transfer. Arrangements will at once be made for such men to be enrolled and transferred.

¹ " No person employed shall insist or attempt to insist on the observance, either by himself or by any other person employed, of any rule, practice, or custom tending to restrict the rate of production on any class of work, or to limit the employment of any class of person, or otherwise tending to restrict production or employment."

² See Appendix to Circular L.2 (below), p. 105.

I am arranging that an Officer of the Ministry shall shortly call upon you with a view to seeing how far it has been possible for you to give effect to these proposals and to giving you any assistance possible in the matter. You should not, however, wait for his call to take the action indicated above.

You will at the same time receive another form of return (Z. 8) as to the numbers of workpeople of various classes employed by you on various classes of work and should return this at the same time.

I trust that your workmen will realize the necessity of these measures in the national interest. If, however, you experience any difficulty in the matter, you should report the matter immediately to the Ministry at the above address, with a view to the investigation and, if possible, the removal of any difficulties, and also to enable the Department, in case of necessity, to consider the application of the Munitions of War Act.

I am, Sir,

Your obedient servant,

D. LLOYD GEORGE.

Schedule enclosed with Circular C.E.1.

MUNITIONS OF WAR ACT, 1915.

RETURN OF INFORMATION REQUIRED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 11 OF THE ABOVE ACT.

M.....
Trade.....
Trade Group.....

Locality of Works
NOTE.—A separate schedule must be filled up for each establishment.

Skilled men at present employed :—	Total Number so engaged. (a)	Number required for supervision and setting-up. (b)	Additional Number required to enable Night-shifts to be worked. (c)	Balance available for transfer to other machines or factories. (d)
(1.) In operating machines of any kind on shell and fuse work.				
(2.) In operating capstan lathes and other automatic and semi-automatic machines (on work other than shell and fuse).				
(3.) On other processes which might be performed by less-skilled labour.				

NOTE.—The numbers in (a) should equal the sum of the numbers in (b), (c), and (d).

I declare that the above is a true return to the best of my knowledge and belief.

Signature of Firm.....
Date

APPENDIX IV.

(CHAPTER IV., p. 64.)

Circular L.2.

MINISTRY OF MUNITIONS.

MUNITIONS LABOUR SUPPLY COMMITTEE.

RECOMMENDATIONS RELATING TO THE EMPLOYMENT AND REMUNERATION OF WOMEN ON MUNITION WORK OF A CLASS WHICH PRIOR TO THE WAR WAS NOT RECOGNISED AS WOMEN'S WORK IN DISTRICTS WHERE SUCH WORK WAS CUSTOMARILY CARRIED ON.

(NOTE.—*These Recommendations are on the basis of the setting-up of the Machines being otherwise provided for. They are strictly confined to the War period and are subject to the observance of the provisions of Schedule II. of the Munitions of War Act reprinted in the Appendix.*)

1. Women of 18 years of age and over employed on time, on work customarily done by men, shall be rated at £1 per week, reckoned on the usual working hours of the district in question for men in Engineering Establishments.

This, however, shall not apply in the case of women employed on work customarily done by fully-skilled tradesmen, in which case the women shall be paid the time rates of the tradesmen whose work they undertake. Overtime and night-shift and Sunday and holiday allowances payable to men shall also be made to women.

2. Where women are prevented from working, owing to breakdown, air raid, or other cause beyond their control, they shall be paid for the time so lost at the rate of 15s. a week as above, unless they are sent home.

3. Women shall not be put on piece work or premium bonus systems until sufficiently qualified. The period of qualification on shell work shall not, in general case, exceed three to four weeks.

4. Where women are employed on piece work they shall be paid the same piece-work prices as are customarily paid to men for the job.

5. Where women are engaged on premium bonus systems, the time allowed for a job shall be that calculated on the basis of the man's time rate.

6. Where the job in question has not hitherto been done on piece work or premium bonus system in the establishment, the piece-work price, or the time allowed, shall be based on a similar job previously done by men, on piece work or premium bonus system as the case may be.

7. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece-work price or time to be allowed, the price or the time to be allowed shall be so adjusted that the women shall receive the same percentage over the time rate of the class of men customarily employed on the job, as such man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

8. The principle upon which the recommendations proceed is that on systems of payment by results equal payment shall be made to women as to the men for an equal amount of work done.

9. Piece-work prices and premium bonus basis times shall be fixed by mutual agreement between the employer and the woman or women who perform the work.

10. On piece work, every woman's time rate as per Clause 1 hereof shall be guaranteed irrespectively of her piece-work earnings. Debit balances shall not be carried forward beyond the usual weekly period of settlement.

11. On premium bonus systems, every woman's time rate as per Clause 1 hereof shall in all cases be paid.

12. Overtime and night shift and Sunday and holiday allowances shall be paid to women employed on piece work or premium bonus system on the same conditions as now prevail in the case of men in the district in question for time work.

13. Piece-work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

14. All wages and balances shall be paid to women through the Office.

15. Any question which arises as to the interpretation of these recommendations shall be determined by the Minister of Munitions.

October, 1915.

Appendix to Circular L.2.

MUNITIONS OF WAR ACT, 1915.

Schedule II.

1. Any departure during the war from the practice ruling in the workshops, shipyards, and other industries prior to the war, shall only be for the period of the war.

2. No change in practice made during the war shall be allowed to prejudice the position of the workmen in the owners' employment, or of their trade unions, in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war.

3. In any readjustment of staff which may have to be effected after the war priority of employment will be given to workmen in the owners' employment at the beginning of the war who have been serving with the colours or who were in the owners' employment when the establishment became a controlled establishment.

4. Where the custom of a shop is changed during the war by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the time and piece rates paid shall be the usual rates of the district for that class of work.

5. The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings.

6. A record of the nature of the departure from the conditions prevailing when the establishment became a controlled establishment shall be kept, and shall be open for inspection by the authorised representative of the Government.

7. Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired.

8. All differences with workmen engaged on Government work arising out of changes so introduced or with regard to wages or conditions of employment arising out of the war shall be settled in accordance with this Act without stoppage of work.

9. Nothing in this Schedule (except as provided by the fourth¹ paragraph thereof) shall prejudice the position of employers or persons employed after the war.

¹ "Fourth" a drafting error for "third," corrected by the Amending Act, 1916, Section 19.

APPENDIX V.

(CHAPTER IV., p. 64).

Circular L.3.

MINISTRY OF MUNITIONS.

MUNITIONS LABOUR SUPPLY COMMITTEE.

RECOMMENDATIONS RELATING TO THE EMPLOYMENT AND REMUNERATION OF SEMI-SKILLED AND UNSKILLED MEN ON MUNITION WORK OF A CLASS WHICH PRIOR TO THE WAR WAS CUSTOMARILY UNDERTAKEN BY SKILLED LABOUR.

(NOTE.—*These Recommendations are strictly confined to the war period and are subject to the observance of Schedule II. of the Munitions of War Act, reprinted in the Appendix.*)¹

GENERAL.

1. Operations on which skilled men are at present employed, but which by reason of their character can be performed by semi-skilled or unskilled labour, may be done by such labour during the period of the war.
2. Where semi-skilled or unskilled male labour is employed on work identical with that customarily undertaken by skilled labour, the time rates and piece prices and premium bonus times shall be the same as customarily obtain for the operations when performed by skilled labour.
3. Where skilled men are at present employed they shall not be displaced by less skilled labour unless other skilled employment is offered to them there or elsewhere.
4. Piece-work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.
5. Overtime, night shift, Sunday and holiday allowances shall be paid to such machinemen on the same basis as to skilled men.

¹ Not reprinted here. See Appendix to Circular L.2 above.

Time Ratings for the Manufacture of complete shell and fuses and cartridge cases, where not hitherto customary.

6. Where the manufacture of this class of munitions was not customarily undertaken by the establishment prior to the war, the following time ratings shall apply :—

- (a) Semi-skilled and unskilled men of 21 years of age and over, when engaged as machinemen on the above manufacture, shall be paid a time rate of 10s. per week lower than the time rate for turners, including war bonuses, engaged in the engineering trade of the district, but in no case shall the rate paid to such men be less than 28s. per week of the normal district hours. This rate also includes all war bonuses already granted.
- (b) Where a semi-skilled or unskilled man of 21 years of age and over has had no experience previously of the operation he is called upon to perform, his starting rate shall be 26s. per week, which shall be paid during his period of training, but such period shall not exceed two months from the date at which he commenced work as a machineman.
- (c) The time rates payable to setters-up shall be not less than as follows :—

Setting up of fuse-making machines, 10s. per week over the current district time rate for turners.

Setting up of shell-making machines, 5s. per week over the current district time rate for turners.

These extras are in addition to any war bonuses which have been granted.

INTERPRETATION.

7. Any question which arises as to the interpretation of these Recommendations shall be determined by the Minister of Munitions.

October, 1915.

APPENDIX VI.

(CHAPTER IV., p. 67).

Circular L.6.DILUTION OF SKILLED LABOUR—NOTES FOR GUIDANCE
OF CONTROLLED ESTABLISHMENTS.

A. ALTERATIONS IN WORKING CONDITIONS.

SCHEDULE II., paragraph 7, provides :—" Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired."

Procedure :—The Minister is of opinion that the following procedure should be adopted by a controlled establishment when any change is made in working conditions.

1. The workmen in the shop in which a change is to be made should be requested by the employer to appoint a deputation of their number together with their local Trade Union representative if they desire, to whom particulars of the proposed change could be explained.

2. At the interview the employer, after explaining the change proposed and giving the date when it is to come into operation, should give the deputation full opportunity of raising any points they desire in connection therewith, so that if possible the introduction may be made with the consent of all parties.

3. Should the deputation be unable at the interview to concur in the change, opportunity should be given for further local consultation when representatives of the Trade Unions concerned might be present.

4. It is not intended that the introduction of the change should be delayed until concurrence of the workpeople is obtained. The change should be introduced after a reasonable time, and if the workpeople or their representatives desire to bring forward any question relating thereto they should follow the procedure laid down in Part I. of the Act.

5. It is not desirable that formal announcement of the proposed change should be put on the notice board of the shop until intimation has been given as above to the men concerned or their Trade Union representative.

While this is so, the Minister is of opinion that it will be consistent with prudence that every endeavour should be made by employers to secure the co-operation of their workpeople in matters of this description.

Any difficulties experienced by either employers or workpeople should be at once referred to the Ministry in order that an immediate endeavour may be made to find a satisfactory solution.

B. SHELL WORK.

It would appear desirable that women under 18 years of age should not be employed on shell over 6-pdrs.

C. WOMEN ON SKILLED WORK.

The Minister is of opinion that before female labour is hereafter employed in the highly skilled branches of the engineering trades the proposal of the employer in question should be submitted to the Ministry for approval.

D. WORKING HOURS.

The desirability of working the three-shift system as compared with the two-shift system, when this is otherwise feasible, has been referred by the Minister to the Committee appointed by him regarding Industrial Fatigue and Hours of Labour for consideration and report.

E. SUNDAY WORK.

This question has also been referred by the Minister to the Committee above named.

F. SUPERINTENDENCE OF FEMALE LABOUR.

The Minister is of opinion that where females are employed they should be supervised by a forewoman, who would act as intermediary between the workers and the shop foreman or manager.

G. PROVISION OF OVERALLS AND CAPS.

In the interest of safety, the Minister recommends that female workers should be supplied by the employers with Caps and Overalls and that suitable arrangements should be made for the necessary washing of these.

H. NIGHT SHIFTS.

It appears desirable that where two shifts are in operation female labour should, as far as is reasonably practicable, be employed on the day shift rather than on the night shift.

I. SUITABLE OCCUPATIONS.

While it is not possible at this stage to indicate fully the occupations in which women may be employed, the following may serve as a guide :—

(i) *Hand Work—*

Inspection and viewing, especially those processes which do not involve the use of appliances of precision.

Assembling.

Welding (mechanical) small parts.

Armature winding.

Taping armature coils.

Armature core building.

Painting and varnishing of shells.

(ii) *Machine Work—*

Automatic machines.

Semi-automatic machines, where operations are within the limits of a woman's physical capacity.

Generally, work of suitable dimensions and of a repetition character.

(iii) *Storekeepers and Timekeepers.*

J. ACCOMMODATION FOR FEMALES.

It is essential that suitable lavatory and cloak room accommodation with the necessary female attendants should be provided for the exclusive use of female labour employed.

K. SUGGESTIONS.

The Minister will be glad to receive any suggestions for incorporation in subsequent issues of these notes, and particularly will be glad to receive a note of the difficulties any establishments may have experienced in connection with their labour and what measures were adopted to adjust the difference. The Minister feels that it is important that all firms should have as much information as possible of the experiences of others so that they may benefit thereby.

MINISTRY OF MUNITIONS OF WAR,

6, WHITEHALL GARDENS,

LONDON, S.W.

November, 1915.

INDEX.

ADAMS, Mr. J. B. 69
 ADDISON, Dr. C., 8, 24, 25, 34, 35, 36,
 52, 55, 63, 64, 73, 75, 79, 80, 88,
 89, 90.
 ADJUDICATION on employers' protests,
 7ff, 44.
 ADJUDICATORS, 8ff, 14, 29, 45, 47, 48
 ADJUTANT-GENERAL—
See SCLATER, Sir H. C.
 ADMIRALTY 11, 13
 AIRD, Sir John 8
 ALLINGHAM, Mr. 33, 34
 AMALGAMATED SOCIETY OF ENGINEERS,
 33, 34, 36, 48, 49, 51, 80, 81.
 Agreement with M.M. on dilution
 (27/10/15), 68.
 Amendments to M.W. Act . . 76ff.
 Deputation to Prime Minister
 (31/12/15), 83ff.
 Accept policy of dilution . . 87
 ANDERSON, Mr. W. C., 80, 81 (n.), 83
 ARBITRATION, 57, 62, 67, 71, 79, 80, 82
 Special arbitration tribunals, 73, 75,
 82, 83, 88ff.
 AREA OFFICE 14, 43
 Superintendent Engineer, 32, 43, 46,
 66.
 Labour Officer, 7, 44, 45, 52, 55, 66
 ARMAMENTS COMMITTEES . . . 16
 North East Coast . 2, 4 (n.), 7, 14
 Glasgow and West of Scotland, 7, 14
 ARMAMENTS OUTPUT COMMITTEE . 17
 ASQUITH, Mr. H. H., 30, 84, 85, 86, 87
 ASQUITH, Mr. J. W. S. 33
 AVES, Mr. E. 88

 BALFOUR OF BURLEIGH, Lord . . 80
 BELGIAN WORKMEN 1, 41
 BEVERIDGE, Mr. W. H., 51, 54, 65, 68,
 69, 71, 73, 74.
 Memorandum on Labour Supply,
 42ff.
 BIRMINGHAM SMALL ARMS Co., 3 (n.)
 BINNS, Mr. 33
 BRADE, Sir R. H., 19, 24, 25, 27
 BROWNIE, Mr. J. T., 34, 46, 48, 51,
 65, 68, 73, 84, 85, 86, 87, 88.
 BURBIDGE, Mr. R. 8
 BUTTON, Mr. F. S. 84, 87, 88

CENTRAL MUNITIONS LABOUR SUPPLY
 COMMITTEE, 48, 49, 50, 51ff.
 Terms of reference and functions,
 51, 52.
 Issue of Circular C.E.1 . . . 53ff
 Constitution of Labour Advisory
 Boards, 54ff.
 Circulars, L.2 and L.3 . . . 55ff
 Procedure for effecting dilution, 64ff
 Agreement with A.S.E. (27/10/15),
 68.
 Wages recommended for women on
 women's work, 70ff.
 For girls under 18 73
 For women in filling factories,
 73, 74.
 For women at Woolwich, 74, 75
 Transfer of wages questions to
 special tribunals, 88ff.
 CHIEF INDUSTRIAL COMMISSIONER, 82
 CHURCHILL, Mr. C. H. 33
 CIRCULARS—
 C.E.1 53ff, 65, 66, 69, 99ff
 C.E.2 67
 L.2., 58ff, 63, 64, 68, 70, 72, 73, 74,
 75, 76, 79, 82, 84, 88, 89, 90, 103ff
 L.3., 61ff, 63, 64, 68, 76, 80, 84ff,
 88, 90, 106ff.
 L.6 66ff, 76, 79, 108ff
 CLARK, Mr. W. F. 33
 CONFERENCES—
 Trade Union (16/6/15), 3ff
 T.U. Executives, (16/9/15), 47, 48ff
 A.S.E. (17/9/15), 49, 51
 Trade Union (30/11/15), 78
 A.S.E. (30/12/15), 83
 CONTROLLED ESTABLISHMENTS, 3, 4, 12,
 39, 50, 53, 55, 56, 58, 68, 76, 79
 COWAN, Mr. W. H. 8

 DANNREUTHER, Mr. 75
 DAVISON, Mr. R. C. 51
 DAWTRY, Mr. W. 51
 DEFENCE OF THE REALM ACT . . 43
 Regulation 8a 43
 DE LA RUE, Sir E. 8
 DILUTION—
 Meaning of 31, 38, 53, 65, 99
 Root of opposition to . . 31, 32, 85
 Urged by Machine Tool Committee,
 32, 33.

DILUTION—*contd.*

Conferences of M.M. with National Advisory Committee, 33ff, 45ff.
Local opposition to, 36, 37, 40, 85
Resolutions of T.U. Conference (17/9/15), 49, 50.

Committee proposed to effect, 34, 48, 49.

See CENTRAL MUNITIONS LABOUR SUPPLY COMMITTEE.

Appointment of Executive officer, 52, 69, 70, 90.

Issue of Circular C.E.1 (4/10/15), 53, 54, 99ff.

Conditional on wages policy, 37, 57, 64, 70, 68, 84ff, 88.

Procedure for effecting, 64ff, 108ff
Consultation of workmen, 65, 66, 67, 76ff.

Agreement with A.S.E. (27/10/15), 68.

Agreement with A.S.E. (31/12/15), 87, 88.

DONALDSON, Sir F. 36

DUCKHAM, Mr. Alexander, 8, 9, 45, 51, 65, 73.

DUCKHAM, Mr. A. McD. 8

DUGDALE, Mr. 8

DUNCAN, Mr. C. 51, 71, 88

ELLIS, Mr. Charles 51

ENGINEERING EMPLOYERS' FEDERATION, 51, 79.

FAIR WAGES CLAUSE . 57, 57 (n.), 79
FORMS—

W.M.V.1 4, 13, 42, 44, 95, 96

W.M.V.200A 9

R.C.1 15, 19, 97, 98

R.C.22 21

V.1 21

S.S.1 12, 20, 21

S.S.1.A. 12

Z.8 53, 65

GEDDES, Mr. Eric 46, 69

GEORGE, Mr. Lloyd, 2, 3, 4, 5, 6, 18, 23, 27, 28, 30, 32, 36, 45, 47, 48, 51, 52, 53, 55, 63, 64, 65, 67, 79, 82, 83, 88, 89, 90, 91.

Proposals concerning W.M.V.'s (16/6/15), 3ff.

On difficulties of release from colours (20/12/15), 20.

Letter to Lord Kitchener (10/8/15), 22.

Speech at Trade Union Congress (9/9/15), 37ff.

On minimum wage for women (17/7/15), 57, 58.

In favour of joint committees, 81, 81 (n.).

Meets deputation of A.S.E. (31/12/15), 84ff.

GOLDFINCH, Mr. A. H. 8
GORDON, Gen. Hamilton 29
GRANET, Sir G. 69

HEBRON, Mr. 5

HENDERSON, Mr. Arthur, 34, 46, 47, 48, 51, 52, 55, 63, 64, 65, 67, 68, 70, 74, 89, 90

HERBERT, Mr. A. . 32, 33, 34, 45, 46

HUTCHINSON, Mr. W. H. 88

ILLINGWORTH, Mr. A. 8, 48

INDUSTRIAL COMPULSION, 2, 3, 5, 6, 42, 43, 45ff.

INSPECTION, 7, 9, 11, 15, 16, 21, 34, 45, 46, 65, 66, 69.

JOHNSON, Mr. T. R. 8

JONES, Mr. Leif 82

KAYLOR, Mr. J. . 51, 58, 59, 60, 73

KENT, Mr. Stephenson 8

KING'S SQUAD 2, 3

KITCHENER, Lord, 17, 18, 23, 27, 28, 35.

Letter to Mr. Ll. George (3/7/15), 18

Letter to Mr. Ll. George (11/8/15), 23

LABOUR DEMAND 1, 35, 38

Methods of ascertaining, 11, 12, 14, 21.

LABOUR EXCHANGES, 5, 6, 7, 12, 13, 19, 22, 29, 43ff, 66.

National Clearing House, 11, 12, 14, 44.

LABOUR SUPPLY DEPARTMENT, 5, 32, 69.

Munition Workers' Enrolment dept., 5, 7, 8, 11.

S.D. Section 12, 13, 14, 20, 21

C.G. Section 15

R.C. Section 19, 20, 21, 22, 24

LANG, Messrs. J. & Sons, 36, 37, 49 (n), 51

LANG, Mr. W. B. 33

LAWRENCE, Miss S. 88

LOCAL JOINT COMMITTEES—

Proposed by A.S.E., 76ff, 80, 81

Supported by Mr. Ll. George, 81 (n)

LOCAL LABOUR ADVISORY BOARDS, 36, 46, 47, 66, 81.

Constitution and functions, 54ff

LUPTON, Mr. A. E. 8

MACARTHUR, Miss M. 51, 58, 73

MACASSEY, Mr. Lynden 80, 88

MACHINE TOOL COMMITTEE . 32, 33

MARKS, Sir G. Croydon 8, 90

MIDLAND EMPLOYERS' FEDERATION, 71.

MOSSSES, Mr. W. 34, 46, 51, 54

MUNITIONS TRIBUNALS . 5, 51, 77

MUNITIONS OF WAR ACT—

- Part 1, 57, 62, 67, 71, 79, 80, 82
- Section 4 (2) . . . 40 (n), 55, 56
- Section 4 (3) . . . 37, 53, 100
- Section 4 (4) . . . 56
- Section 4 (5) . . . 37, 53, 100
- Section 7 . . . 57, 72, 78, 79
- Section 10 . . . 43
- Schedule II., 35, 36, 39, 40, 53, 56, 64, 65, 63, 67, 73, 105.

MUNITIONS OF WAR (AMENDMENT) ACT—

- Sections 6-8, 72, 76, 78, 79, 80ff, 83ff.

MUNITIONS WORK BUREAUX, 5, 6, 7, 19.

MURRAY OF ELIBANK, Lord . . . 69

- NATIONAL ADVISORY COMMITTEE, 4, 6, 13, 36, 41, 48, 49, 54, 55, 76, 78, 81
- Propose W.M.V. Scheme . . . 2, 3
- Confer with M.M. on dilution, 33ff, 45ff.

NATIONAL FEDERATION OF WOMEN WORKERS, 78, 79.

PANKHURST, Mrs. . . . 57, 58

PIECE-WORK—

- Opposition to . . . 47

PIECE-WORK PRICES, 31, 33, 60, 61, 70, 71.

- Of dilutees. . . 34, 35, 37, 40, 56, 57
- Pledge not to permit reduction of, 39, 40, 40 (n.)

PREMIUM BONUS, 35, 58, 58 (n.), 60, 61

PROFITS—

- Limitation of . . . 31, 39

RELEASE FROM THE COLOURS . . . 17ff

- W.O. letter (22/1/15). . . 17
- Individual release . . . 17, 20ff
- Bulk release . . . 17, 18ff, 23ff
- Statistics . . . 18, 20, 21, 22, 24, 30
- First Bulk Scheme . . . 18ff, 24
- Barred units . . . 18, 22, 23.
- Enrolment form . . . 19, 30, 97, 98
- Rate of wages . . . 19
- Separation allowance . . . 19
- Allocation . . . 20
- Difficulties in obtaining, 20, 22, 24, 27.

Procedure . . . 17, 18, 20, 21, 22

Officers . . . 22

Men on active service . . . 23, 30

Second Bulk Scheme. . . 23ff

Negotiations with W.O. . . 24ff

Census of munition workers in Home Forces, 24ff, 28ff.

Exclusion of 3rd New Army, 26, 27, 28, 29, 30.

W.O. instructions (16/9/15), 27, 28, 29.

RENOLD, Messrs. Hans . . . 33

REY, Mr. C. F., 5, 6, 10(n.), 11, 14, 19, 51, 65, 69.

SCLATER, Sir H. C., 24, 25, 26, 27, 28

SCOTT, Major F. J., 19, 20, 21, 24, 25, 26.

Advantages of individual release, 21

Memo. on bulk release (18/8/15), 24

SHIPBUILDING EMPLOYERS' FEDERATION, 79.

SMITH, Adam . . . 15

SMITH, Mr. Allan M., 51, 54, 58, 59, 60, 65, 73, 88.

SMITH, Sir H. Ll., 1, 19, 24, 25, 27, 28, 29, 35, 69, 71, 73, 76.

SMITH, Mr. J. C. . . . 75, 89

SMITH, Mr. Thornton . . . 8

SMITH, Mr. W. D. Ford . . . 33

SPICER, Mr. Graham . . . 48

STRANGE, Col. . . . 74, 74 (n).

STREATFIELD, Mrs. . . . 88

SWEATING, . . . 57, 58, 71, 83

TRADES UNION CONGRESS . . . 36, 37ff

TRADE UNION RESTRICTIONS, 1, 31, 33, 34, 35, 36, 37, 39, 40, 41, 45, 49, 53, 65, 78, 84ff, 100.

TREASURY AGREEMENT, 1, 34, 35, 36, 39ff, 49, 53, 84, 85, 86, 100.

VANDERVELDE, M. . . . 41

VICKERS, Messrs. . . . 13

WAGES—

Mr. Ll. George's pledges in regard to, 39, 40, 40 (n.), 57, 58.

Powers of M.M. to regulate, 55ff, 63, 76, 78, 79, 80, 82, 83ff, 89.

Of women on men's work, 58ff. See CIRCULAR L.2.

Of girls under 18 . . . 60, 64, 73, 90

Of semi-skilled and unskilled men on ammunition, 61ff, 80, 84ff. See CIRCULAR L.3.

Of women on women's work, 70ff, 80, 90.

Midland Agreement . . . 71

Of women employed in filling factories, 73, 74, 90.

Of women employed at Woolwich, 74, 75, 89, 90.

Clauses in M.W. Amendment Bill relating to, 76, 78, 79, 80, 82, 83ff.

Special arbitration tribunals, 73, 75, 82, 83, 88ff.

See also DILUTION, FAIR WAGES CLAUSE, PIECE-WORK PRICES, PREMIUM BONUS, SWEATING.

WALSH, Mr. C. . . . 8

WAR MUNITION VOLUNTEERS—

Origin of scheme	2ff.
Undertaking	3ff, 95, 96
Rate of wages	4, 15, 44
Subsistence allowance	4, 13, 42, 46
Travelling allowances	4
Enrolment of	5ff, 44, 50
Classification of	7
Difficulties in transferring,	7ff, 14, 15, 16, 43, 46, 66.
Allocation of	13ff
Procedure of transfer	13
Live Register	13
Statistics	7, 10, 14, 35
Reasons for failure,	15, 16, 35, 42, 43.

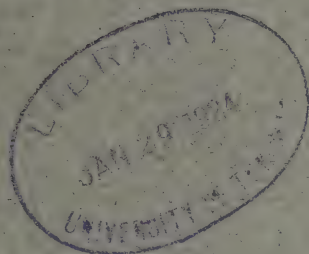
WARD, Mr. J. C.	88
WEST, Mr. Glynn,	34, 46, 51, 58, 60, 62, 69, 73.
WOLFF, Mr.	34
WOMEN—	
Employment of,	32, 33, 34, 35, 36, 37, 47, 48, 50, 57.
<i>See</i> WAGES.	
WOOLWICH ARSENAL,	36, 40, 41, 74, 75, 89, 90.
WORKERS' UNION	71
YOUNG, Mr. R.	68, 88
YOUNGER, Sir G.	8

CONFIDENTIAL.

For Official Information only.

196
Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS.



VOLUME IV

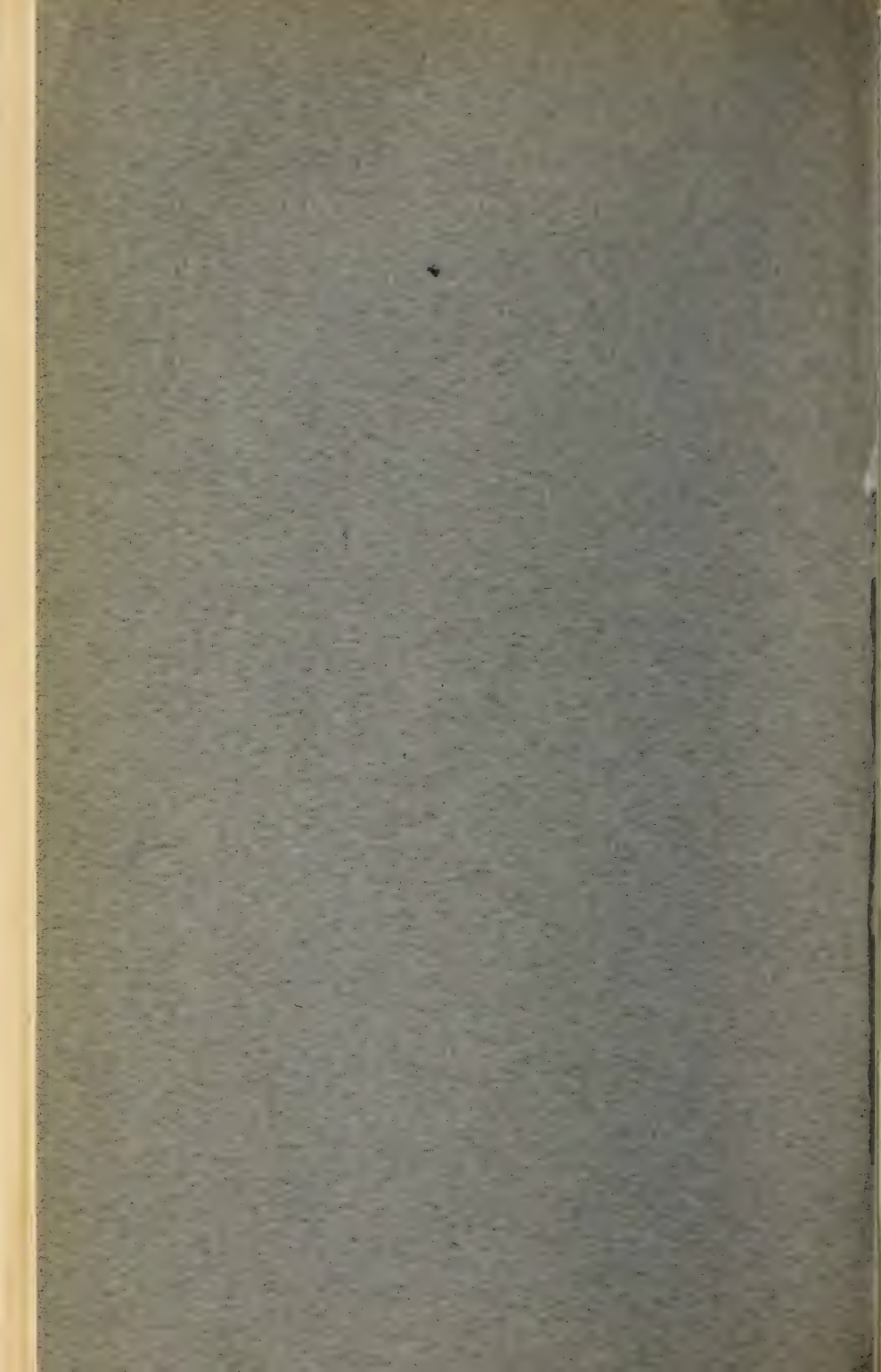
THE SUPPLY AND CONTROL OF LABOUR

1915-1916

PART II

LABOUR REGULATION AND THE
MUNITIONS OF WAR (AMENDMENT) ACT, 1916

196

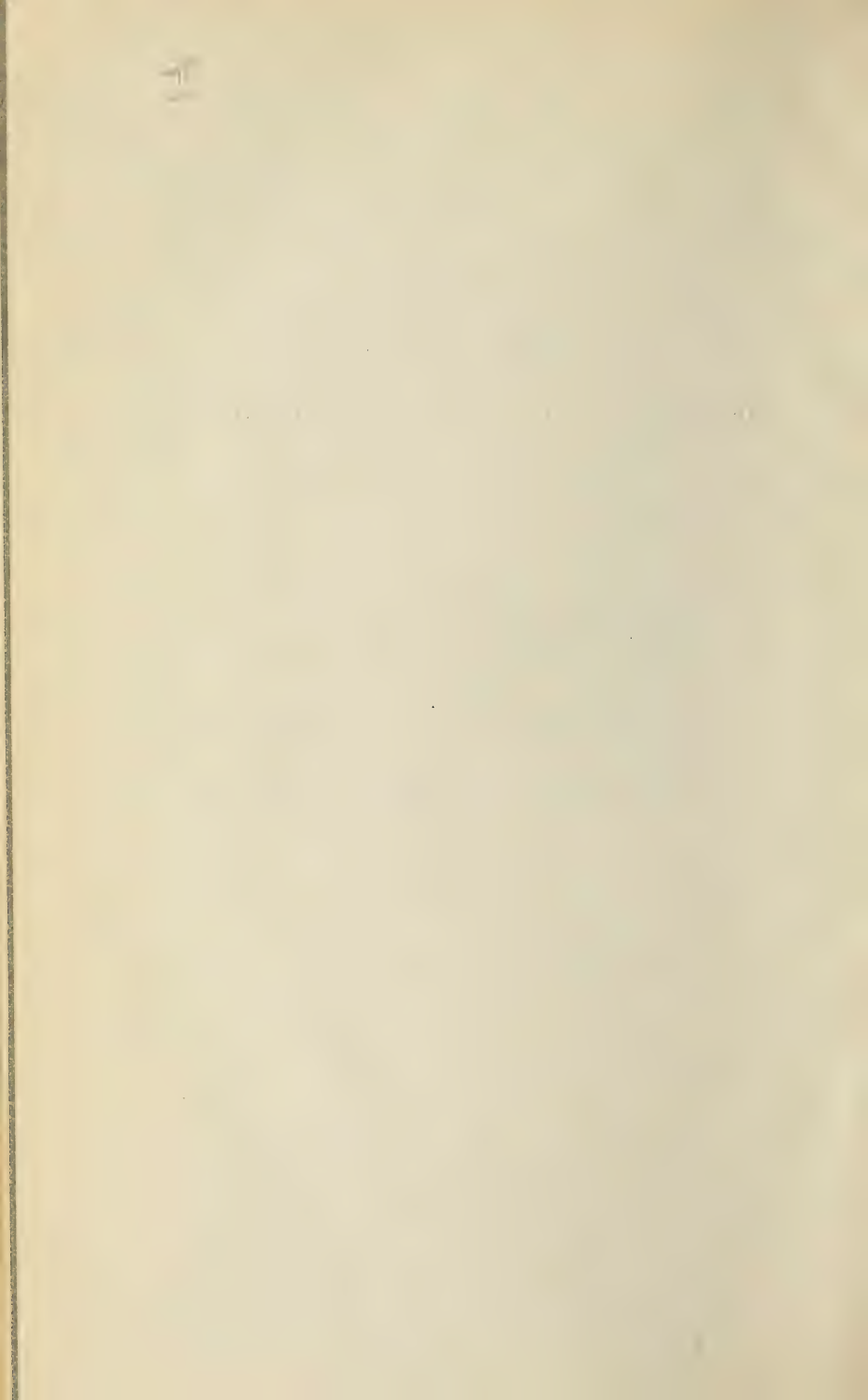


VOLUME IV

THE SUPPLY AND CONTROL OF LABOUR.
1915-16

PART II

LABOUR REGULATION
AND
THE MUNITIONS OF WAR
(AMENDMENT) ACT, 1916



CONTENTS.

CHAPTER I.

The Regulation of Labour.

	PAGE
1. Introductory	1
2. Suspension of the Right to Strike and Compulsory Arbitration	2
3. The Miners' Strike in South Wales (July, 1915)	5
4. Statistics of Disputes	9
5. Munitions Tribunals	11
6. Labour Stealing and Leaving Certificates	14
7. Difficulties in the Administration of Section 7	17
8. Increase in the number of Controlled Establishments ..	23
9. The Munitions (Ordering of Work) Regulations and Model Rules	24
10. The Enforcement of Works Rules by Munitions Tribunals, 1915	31
11. Conclusion	34

CHAPTER II.

The Clyde Strikes, 1915, and the Balfour-Macassey Commission.

1. The Engineers' Strike (February, 1915)	36
2. Agreements for the Removal of Restrictions on Production	41
3. Accusations of Drinking and Idleness against the Clyde Workmen	42
4. The Glasgow and West of Scotland Armaments Committee	45
5. Attitude of the Workmen to the Munitions of War Act ..	47
6. The Coppersmiths' Strike at Fairfield	49
7. The Shipwrights' Strike at Fairfield	50
8. Sequel of the Fairfield Shipwrights' Strike.. .. .	54
9. The Enquiry by Lord Balfour of Burleigh and Mr. Macassey into the Fairfield Strike	56
10. The Enquiry by the Commission into the Grievances under the Munitions of War Act	60
11. The Recommendations of the Commission	64

CHAPTER III.

The Munitions of War (Amendment) Act, 1916.

	PAGE
1. The Origin and Growth of the Bill	66
The Workmen's Demands	67
The Employers' Criticisms	70
2. Section 9. New Definition of "Munitions Work" ..	71
3. Section 5. Amendment of the Provisions relating to Leaving Certificates	75
4. Amendments relating to Munitions Tribunals	77
Provision of an Appeal Tribunal	78
The Abolition of Imprisonment for Munitions Offences	79
5. Defence of the Realm Act, Regulation against Incitement to Strike	81
6. Section 2. Amendment of the Procedure for referring Differences to Arbitration	82
7. Miscellaneous Amendments	83
8. Amendment of the Munitions (Ordering of Work) Regulations	85
9. The further Application of the Provisions as to Leaving Certificates	87
10. Conclusion	90

APPENDICES.

I. Model Rules framed by the Engineering Employers' Federation for the use of Federated Firms	95
II. Clyde Munition Workers' Enquiry. Interim Report regarding the Case of the imprisoned Fairfield Ship- wrights	101
III. Note on the Rent Strikes on the Clyde (November, 1915)	103
IV. Clyde Munition Workers' Enquiry. Report of the Rt. Hon. Lord Balfour of Burleigh, K.T., and Mr. Lynden Macassey, K.C.	106
V. The Munitions of War (Amendment) Act, 1916 ..	112

INDEX.

Index	123
---------------	-----

CHAPTER I.

THE REGULATION OF LABOUR.

I. Introductory.

In addition to the measures which have been described for supplying skilled labour for munitions work, the Ministry took powers to prevent the disorganisation of the munitions factories by stoppages or the capricious movement of labour and to increase the efficiency of the workmen by tightening discipline in the workshops. The Munitions of War Act forbade employers to lock out their men or their men to strike in connection with any difference concerning employment on munitions work. Provision was made for reporting such a difference to the Chief Industrial Commissioner, who, if satisfied that it was genuine, would arrange for its settlement by arbitration. Employers were forbidden to give employment to a workman who had been engaged on munitions work in the previous six weeks unless he held a leaving certificate from his last employer. Power was taken to declare establishments in which munitions work was carried on to be controlled; in return for the limitation of their profits, all rules, practices and customs tending to restrict production or employment were suspended for the period of the War, and legal sanction was secured for the observance of any regulations made by the Minister with a view to attaining and maintaining a proper standard of efficiency. The manner in which these powers were exercised will be described in the following chapters.

All these provisions were directed to one end—to increase and accelerate the output of munitions of war. But the scope of the Ministry's regulative powers was gradually widened. The Ministry which at first looked only to production, endeavoured to become a model employer. The welfare of the munition worker rather than his mere efficiency became the end. Overtime was cut down and Sunday work abolished so far as the exigencies of supply would admit. The principle of fair wages was extended and a national minimum prescribed for women employed on munitions work. The canteen became an integral part of the national factory, and private establishments were encouraged to follow the example of the Ministry. The amenities of the factory were studied, and special officers were appointed to look after the comfort as well as the health of the workpeople, more especially women and boys. These developments

naturally took time, and hardly emerged beyond the stage of ideals before the year 1916 was well advanced. Their consideration therefore falls outside the scope of this volume, with the exception of women's wages, which the necessity of dilution compelled the Ministry to deal with before the close of 1915.

II. Suspension of the Right to Strike and Compulsory Arbitration.

When the Munitions of War Bill was first drafted early in June, 1915, it was intended to prohibit all strikes and lock-outs and make arbitration compulsory wherever a difference could not be settled by the ordinary methods. But the Miners and the Cotton Trade refused to concede the abrogation of the right to strike and the Government did not consider it expedient to attempt to impose their wishes on such powerful organisations. The Act therefore applied only to differences "as to rates of wages, hours of work, or otherwise as to terms or conditions of or affecting employment on the manufacture or repair of arms, ammunition, ships, vehicles, aircraft, or any other articles required for use in war, or of the metals, machines or tools required for that manufacture or repair." Provision, however, was made for applying the Act by Proclamation to any difference concerning employment on any other work of any description "on the ground that in the opinion of His Majesty the existence or continuance of the difference is directly or indirectly prejudicial to the manufacture, transport or supply of munitions of war."

The Act did not supersede any established method of settling disputes either directly or through the trade unions and employers' associations. But if any difference occurred or was apprehended either between the employer and his workpeople or between any sections of his employees, it was open to either party to report the difference to the Board of Trade, who were bound to consider it and take any steps which might seem expedient to promote a settlement. In the meantime to strike or lock out was illegal, unless 21 days had elapsed from the date on which the difference was reported without its being referred by the Board of Trade for settlement by conciliation or arbitration by a statutory tribunal. Three tribunals were provided under the Act, (1) the Committee on Production, (2) a single arbitrator to be agreed upon by the parties or in default of agreement appointed by the Board of Trade, (3) a court of arbitration consisting of equal numbers of employers' and workmen's representatives with a chairman appointed by the Board of Trade. After the difference had been referred for settlement by the Board of Trade, the parties to it were forbidden to strike or lock out, but it was provided that, where a settlement was in the opinion of the Board of Trade unduly delayed, the Board might annul the reference and refer the matter to a statutory tribunal. Awards might be retrospective and were made binding both on employers and on workmen. The penalty for striking, locking out or failure to comply with an award was a

fine not exceeding £5 in respect of each workman for each day or part of a day on which the offence was persisted in.

Thus all stoppages on munitions work were made illegal, unless the Board of Trade allowed three weeks to elapse after the date of the report without referring the matter in dispute for settlement. It may be thought that the provisions of the Act were gratuitously complex and obscure; and complexity and obscurity in any statute which affects Labour is a fertile source of mischief and misunderstanding. This must be conceded; nor can it be doubted that the meaning of the Act was misunderstood and much irritation was caused by a procedure which was widely believed to encourage procrastination. But the complexity was almost entirely due to two reasons. On the one hand it was thought essential that the Chief Industrial Commissioner should have time to enquire into the exact nature of the matter in dispute and ascertain whether the difference reported to him was genuine or merely a kite flown by some third party in pursuance of a quarrel foreign to the parties actually drawn in. On the other hand the Government desired that compulsory arbitration should supersede as little as possible the methods of settlement already generally established and adjusted after long experience to the peculiar local and industrial conditions of the various Trades.¹ For this reason it was not prescribed that a difference *must* be reported to the Board of Trade; and after it had been reported the Chief Industrial Commissioner was still free to promote a settlement by the established methods, so long as there remained any reasonable prospect of success.

Another criticism commonly made was that the procedure for settling disputes was unnecessarily complicated by thus bringing in the Board of Trade; delay and duplication of effort might have been avoided, if the Ministry of Munitions had been entrusted with the duty of referring to arbitration differences which it could not settle. There is some substance in this criticism. Not only workmen but employers were often in doubt whether a question fell within the province of the Board of Trade or the Ministry, and after communicating with one Department were annoyed to be told that the matter should have been communicated to another. Moreover, the line of demarcation between the provinces of the two Departments was not easy to draw. A claim for an advance in wages in a controlled establishment might be first handled by the Wages section of the Ministry, then after failure to reach agreement reported to the Board of Trade, where the whole matter was reopened, and finally referred to the Committee on Production for arbitration. This procedure inevitably caused delay, which was aggravated by inadequate machinery for dealing with the growing correspondence of the Ministry and the congestion of work in the hands of the Committee on Production. Even if letters were properly directed, they might be incorrectly filed, or overlooked for a time, or blocked by a sudden

¹ *Parliamentary Debates* (1915), H. of C., LXXII., 1540.

and overwhelming influx. The difficulties were great, but more effective measures might have been taken, if the need for prompt action in dealing with disputes had been recognised as imperative.

In particular the relation of the Labour Officers¹ to the Chief Industrial Commissioner's department of the Board of Trade was hard to define. It was important that differences and disputes should not be handled by more than one authority, since, apart from the intrinsic value of a consistent policy, the workmen's representatives were quick to discover which authority was more likely to be favourable to their claims and were not averse to playing off one against the other. Further, there were obvious disadvantages if one department dealt with the beginnings of a dispute and then handed the trouble over to another for settlement by negotiation or if that failed for arbitration by a third. On the other hand the Labour Officers could hardly be confined to expounding the Act and advising the parties to a difference, actual or apprehended, to report it to the Board of Trade. At first no doubt they acted in the main as inspectors and intelligence officers. But as they became better acquainted with their districts and better known to employers and workmen, they were confronted with numerous petty difficulties which it would have been folly not to attempt to settle on the spot. In October they were instructed² to take an active part in promoting dilution, and such activity inevitably brought about situations out of which strikes and threats of strikes rapidly developed. To prevent overlapping the following instructions³ were issued early in November:—

“(1) In regard to difficulties apprehended or arising directly out of Part II. of the Munitions of War Act, including the Second Schedule, Labour Officers may, in conjunction with the employers and unions concerned or the Labour Advisory Boards, take steps to remove these difficulties.

“(2) In regard to difficulties arising out of other matters on munitions work (*e.g.*, difficulties as to wages, conditions, etc.) the function of the Labour Officer should be confined to pointing out to the parties concerned that stoppages of work are illegal and that if the difficulties cannot be settled by agreement, they should be reported to the Board of Trade under Part I. of the Munitions of War Act.

“(3) In regard to all classes of difficulties the Labour Officer should make it clear that, failing agreement, the proper authority to decide in all cases is the Board of Trade and not the Ministry of Munitions or himself as arbitrator.”

These instructions did not entirely solve the difficulty. Nearly every strike of importance in the following two years arose in connection with dilution, military service, or leaving certificates, and difficulties about wages were as often due to dilution as to the advance of prices.

¹ The Labour Officers were local representatives of the Labour Department attached to the Area Offices of the Ministry.

² L.O. Circ. 40.

³ L.O. Circ. 59, M.W. 56878.

Indeed the more the Ministry interfered with Labour, the more involved its local officers became in differences and disputes; and since in a highly charged atmosphere a trivial quarrel might let loose a storm, it was incumbent on them to secure a settlement, if possible, as soon as trouble arose.

Thus the Ministry found itself in a dilemma. On the one hand, as the Department responsible for supplies most urgently required, and employing or controlling the employment of more than a million men and women, it could not stand aloof from difficulties which might quickly grow into perilous differences. On the other hand the administrative responsibility for settling differences or referring them to arbitration lay with another Department, whose accumulated experience of labour organisation and industrial relations could not be applied immediately to the source of irritation. Had it been possible to unite these functions, the policy of the Act might perhaps have been carried out by methods at once simpler, swifter and more effective. As it was, a compromise resulted, which may have been the best solution attainable, but cannot be regarded as satisfactory.

III. The Miners' Strike in South Wales, July, 1915.

Events were swift to test the strength of the legal prohibition against strikes. On 3 March, 1915, the South Wales Miners' Federation had informed the Coal Owners' Association of their intention to terminate on 30 June the agreement under which work in the coal-field had been carried on since March, 1910. In accordance with this agreement, wages varied within certain limits with the selling price of large coal delivered free on board at the Welsh ports, the minimum being 35 per cent. and the maximum 60 per cent. above the standard rate of 1879. When coal was selling at any figure between 14s. and 14s. 9d. a ton, wages were fixed at 50 per cent. above the 1879 standard, and they rose or fell 9 per cent. for each rise or fall of 1s. in the price of coal. In March, 1913, wages had reached the maximum and remained there.

While this agreement lasted, the miners were unable to claim any share in the profits from the high prices of Welsh coal consequent upon the War. The bulk of the Welsh output was sold on yearly contracts, which for 1915 ranged from 18s. to 19s. a ton; the remainder commanded a very much higher figure.¹ The Federation therefore requested a meeting with the coal owners to discuss proposals for a new agreement, the chief of which were demands for a new standard rate of wages 50 per cent. above the 1879 standard, the abolition of the maximum, and the fixing of a new minimum 10 per cent. above the new standard, to be paid when the average selling price of large

¹ 35s. a ton, according to Sir A. Markham, in June, 1915. *Parliamentary Debates* (1915), *H. of C.*, LXXII., 798.

coal was at or below 15s. 6d. The last demand involved a new basis for calculating wages to the advantage of the miners. For, whereas under the 1910 agreement a selling price of 15s. 6d. carried a wage 57 per cent. above the 1879 standard, it was now proposed that it should carry a wage 65 per cent. above that standard. The owners replied on 9 March asking the miners to continue the old agreement until the end of the War and offering a war bonus of 10 per cent. on existing standard rates.¹

Meanwhile the miners throughout Great Britain had been engaged in seeking a war bonus of 25 per cent. on earnings. The outlook was threatening, when the Prime Minister intervened and decided that if agreement could not be reached in the various districts, the matter should go to arbitration. In South Wales Lord St. Aldwyn was asked to arbitrate and on 12 May awarded an advance of $17\frac{1}{2}$ per cent., thus raising wages $77\frac{1}{2}$ per cent. above the standard of 1879.

The Welsh miners, however, continued to press their original proposals for a new agreement. Their object was partly to simplify the old system, which was exceedingly complicated, but principally to take advantage of their strong position in order to secure a high minimum after the War when they feared a depression, and to claim at once an advance in wages should the price of coal rise still higher in the course of the War. The owners refused to accede to these demands, and a stoppage throughout the coal-field seemed inevitable on 30 June, unless the Government could avert it. For, although the owners had intimated their willingness to refer the whole matter to the Committee on Production, the men's representatives declined to have it settled by arbitration.

On 26 June the President of the Board of Trade met the parties. After an exhaustive discussion it was obvious that no settlement could be reached, but at last, in order to escape a deadlock, the men's representatives consented to have the difference reported on by the Chief Industrial Commissioner, and undertook, if his report was acceptable to them, to recommend its acceptance by the miners' delegates. Accordingly, on 27 June, Sir George Askwith was appointed to enquire into the whole circumstances of the miners' demand and to report to the Government not later than the morning of 29 June with a recommendation as to what the settlement should be.

In his report,² Sir George laid down two principles which in his opinion should govern the consideration of the whole subject:— (1) "that during the present grave national emergency no section of the community should take advantage of the needs of the nation to make a profit beyond what is normal in times of peace ; (2) that if there is a movement of profits, due to war conditions, such movement cannot

¹ Memorandum by Mr. I. H. Mitchell, M.W. 20552.

² M.W. 20552.

equitably take place without a movement of wages, and if the selling price of coal should rise so that coal owners make additional realised profits, the miners should get a share of such profits."

In accordance with these principles, he recommended a settlement on the following lines :—

" (1) If, and so soon as, prices rise so that the conditions on which Lord St. Aldwyn's award raising wages $17\frac{1}{2}$ per cent. was based, are materially altered, any claim made for an alteration of wages should be considered and discussed notwithstanding any previously existing maximum.

" (2) In the event of such claim not being settled by agreement, the claim should be adjusted either in accordance with the existing machinery, or, if it be preferred, by some person or tribunal agreed upon, who should have power to take into account all relevant circumstances (*e.g.*, the question of increased cost of production and the state of trade, as well as prices and profits).

" (3) The claim that a new wage agreement should now be settled on normal peace lines, with an attempt to dismiss from the mind the conditions of war, is in my opinion impracticable. Certain essential features of such an agreement would be inoperative during the War, and the possible conditions after the War, to which it is thought the new wage agreement should apply, may be quite as abnormal as the present conditions. I suggest, therefore, that the conditions both during and for some time following the War are likely to be so different from ordinary peace conditions, to which it is admitted the wage agreement is intended to apply, that any such agreement would be in practice valueless.

" (4) In order that the position of the miners in respect to a new minimum may not be prejudiced by the deferment of the consideration of a new agreement, I am of opinion that before any proposal for a reduction of wages below the present rate of $77\frac{1}{2}$ per cent. above standard is entertained, the question of what shall be the new minimum should be decided, by agreement or by some person or tribunal agreed upon."

When Sir George Askwith's report was submitted to the men's representatives on 29 June, they at once intimated that nothing could prevent a stoppage throughout the coal-field if the report was made public. Its publication was therefore postponed.

The next day the Under-Secretary, Home Office, Mr. Brace, stated that from enquiries he had made of two of the miners' principal leaders, he was confident that if certain concessions were made the strike could be averted. These concessions in effect were : (1) the establishment of a new standard 50 per cent. above that of 1879, subject

to the proviso that the alteration of the standard should not in itself effect an immediate change in wages ; (2) the abolition of the maximum and minimum provided for in the 1910 agreement ; (3) the levelling up of the rates for surfacemen, night-men, and hauliers.

Mr. Henderson, with Mr. Brace and Mr. Roberts, at once went to Wales and laid these concessions before the Miners' Executive, on 1 July, as a settlement of the dispute. The Executive were told that there would be no alteration in the terms, which must be either accepted or rejected. Nevertheless, they resolved "that the Council recommend the Conference to treat the general proposals of the Government as forming the basis for negotiations for a settlement, and that work be continued under a day-to-day contract until the completed agreement has been submitted and ratified by a further conference, such agreement to be submitted to a further conference on or before 14 July, 1915." This resolution was endorsed late the same evening by the conference of delegates, after an acrimonious discussion, by 123 votes to 112.

On the same day the coal owners met the President of the Board of Trade, and, though very reluctant to accept the terms, ultimately bowed to the express wish of the President.

The Miners' Executive then proceeded to demand further concessions in the form of interpretations of the Government's terms, and intimated that unless they were made the men would cease work. But Mr. Runciman would not yield. He therefore wrote¹ on 7 July to Mr. Lloyd George asking whether he was prepared to deal with the crisis which might arise. "I am still in touch with the parties," he said, "and the men are unlikely to take any drastic action prior to receiving from me interpretations of the proposals I made to both sides on 30 June. As, however, the interpretations the men want are really in the nature of a demand for further concessions, and as I have already gone very far in compelling the owners to accept conditions which are very distasteful to them, and as my proposals on 30 June were definitely made for acceptance or rejection without alteration, I feel it extremely difficult to reopen the matter."

Mr. Lloyd George replied² the next day that he should not hesitate, if unfortunately the necessity should arise, to advise the issue of a Proclamation bringing the difference within the scope of Part I. of the Munitions of War Act.

On Monday, 12 July, a conference of delegates rejected the terms of settlement put forward by the Government, and resolved by a large majority, "That we do not accept anything less than our original proposals, and that we stop the collieries on Thursday next until these demands are conceded."³

¹ M.W. 20552.

² M.W. 20552.

³ *Parliamentary Debates* (1915), *H. of C.*, LXXIII., 739.

On 13 July the Proclamation was issued, making it an offence, punishable under the Munitions of War Act, to take part in a strike in the South Wales coal-mining industry. Copies of the Proclamation were posted throughout the coal-field, and a General Munitions Tribunal was set up for South Wales. But the determination of the miners to strike was only hardened by these preparations. On 15 July 200,000 men ceased work, and the Miners' Conference rejected by a large majority the recommendation of the Council that work should be resumed the following day.

On 20 July negotiations were reopened between the Government and the miners. Mr. Lloyd George went to Cardiff with Mr. Runciman and Mr. Henderson, and the next day he was able to telegraph to the Prime Minister as follows:—"Miners' Conference have decided to recommend their men to return to work forthwith, and urge their men to make up for lost time. The solution of the deadlock was rendered possible on the lines of agreement rather than of coercion by the public-spirited action of the coal owners, who placed themselves unreservedly in the Government's hands, for the purpose of securing a peaceful and reasonable settlement immediately."

In effect the miners obtained nearly everything they had demanded, and it was mutually agreed between the parties that no one should be penalised for the part he had taken in the dispute. The strike demonstrated the impotence of legal provisions for compulsory arbitration where a large body of obstinate men were determined to cease work rather than surrender their claims.

IV. Statistics of Disputes.

It is idle to enquire what would have happened if stoppages of munitions work had not been made illegal. As will be seen from the following figures, the Munitions of War Act did not prevent strikes from happening or even reduce them to negligible proportions. The standard set up in the last quarter of 1914 by the voluntary self-control of Labour was not surpassed. Although the figures are not unsatisfactory from August, 1915, to October, 1916, the abrogation of the right to strike together with the embargo on free movement and the suspension of trade union customs produced serious unrest in some of the chief industrial districts, and 1917 was one of the stormiest periods in the history of the engineering, shipbuilding and metal trades. But even during the quieter period, the relative position of these trades to the rest was not substantially better than it was before strikes on munitions work were made offences against the Law.²

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXIII., 1500.

² The number of working days lost through strikes and lock-outs between 1899 and 1913 in the metal, engineering and shipbuilding trades was 15.6 per cent. of the total lost in all trades.

INDUSTRIAL DISPUTES KNOWN TO THE BOARD
OF TRADE, 1911 to 1917.¹

	Disputes.		Workmen affected.		Working days lost.		% F. of E.
	A.	B.	C.	D.	E.	F.	
	All Trades.	Eng., Shipbuilding and Metal Trades.	All Trades.	Eng., Shipbuilding and Metal Trades.	All Trades.	Eng., Shipbuilding and Metal Trades.	
1911, Average 4 quarters	226	64	240,495	23,446	2,579,897	330,479	13
1912, " "	214	58	365,820	20,221	10,228,669	342,332	3
1913, " "	374	98	172,231	38,172	2,907,683	746,924	26
1914, January to March	247	66	122,995	13,603	2,542,600	424,200	17
1914, April to June ..	416 ^a	91	238,865	23,061	5,219,200	307,500	6
1914, July to September	195	47	65,541	11,978	2,188,100	581,900	27
1914, Oct. to December	141	39	21,128	2,241	161,437	44,200	27
1915, January to March	161	54	51,557	15,890	425,900	158,300	37
1915, April to June ..	199	47	84,079	15,935	525,100	94,900	18
1915, July to September	171	43	272,328 ²	7,092	1,662,100 ²	39,600	2
1915, Oct. to December	143	33	37,972	5,347	425,034	68,908	16
1916, January to March	130	36	79,041	9,740	558,600	80,600	14
1916, April to June ..	170	21	54,937	9,402	1,270,000	53,200	4
1916, July to September	114	23	53,410	13,808	290,600	39,700	14
1916, Oct. to December	111	24	80,988	43,741	462,700	172,800	37
1917, January to March	80	18	46,676	30,862	278,500	190,000	68
1917, April to June ..	130	33	234,427	179,673	1,828,800	1,490,500	81
1917, July to September	238	56	184,982	32,865	1,398,100	299,300	21
1917, Oct. to December	240	74	354,642	143,299	2,008,500	939,200	47

In using these figures as a test of the value of the legal prohibition against strikes on munitions work it is necessary to bear in mind that contrary influences were in operation. On the one hand, not only did public opinion condemn striking as an act of treachery to the Nation, but the trade union leaders were almost unanimous in repudiating the strikers and in doing all in their power to prevent stoppages. Further, since strikes were illegal, it was not possible to authorise strike pay, even had the executive councils of the unions so desired. On the other hand the occasions of disputes were multiplied. The novel power which the leaving certificate gave to foremen and managers, the suspension of trade union customs, the introduction of non-unionists into union shops, dilution, the mistakes of the recruiting authorities and the smouldering suspicion of victimisation, the rise in the cost of living, the discomfort of mean and crowded lodgings, and the strain of overwork, all contributed to set the temper of the workmen on edge and offered daily temptations even to the loyal and steady to throw down their tools. Under these circumstances it is perhaps

¹ *Board of Trade Labour Gazette.*

² These figures include 200,000 miners, who lost 1,380,000 working days in the South Wales Coal Strike.

remarkable that the number of strikes was not greater, especially since the large industrial centres are often little moved by the opinion of the country as reflected in Parliament and the press, and the trade union leaders lost much of their influence over the rank and file when they surrendered the right to strike.

V. Munitions Tribunals.

When the Munitions of War Bill was introduced, it was intended to form special courts to deal with breaches of works rules, notably bad time-keeping and restriction of production, the failure of munition volunteers to make good their undertaking, and complaints that leaving certificates had been withheld unreasonably. In deference to Labour opinion it was agreed that these courts should have something of a domestic character, comparable to that of a trade union branch dealing with its delinquent members; £3 was fixed as the limit up to which fines could be imposed; and in place of imprisonment for failure or refusal to pay the fine the court was empowered to order its recovery by deduction from wages.

All other offences under the Act it was intended to prosecute before the ordinary Courts of Summary Jurisdiction. But in the course of debate objection was taken to bringing industrial offences into the police courts or before the magistrates.¹ In Committee, therefore, power was granted to set up General Munitions Tribunals, with jurisdiction over all offences under the Act, in addition to the local courts already provided.² The penalties remained unaltered, and included imprisonment if fines were not paid.

The constitution of these Tribunals was modelled on that of the Courts of Referees under Part II. of the National Insurance Act, 1911. Each Tribunal consisted of a chairman appointed by the Minister sitting with assessors, whom he was bound to consult before giving his decision, representative of employers and workmen. The chairmen of the Courts of Referees and the members of the panels from which their assessors were drawn were invited to serve in the same capacity on the Local Munitions Tribunals; and the districts served by the Courts were adopted as the administrative units in the Munitions Area. For the General Tribunals the chairmen appointed were King's Counsel except two, of whom one was the Umpire under the Insurance Act; the assessors representing employers were chosen as a rule from the Advisory Trade Committees of the Labour Exchanges with the assistance of the Divisional Officers; workmen's representatives were nominated by the National Advisory Committee. The clerks to the Tribunals were selected, so far as possible, from gentlemen who had had experience of the working of the Summary Jurisdiction Acts as clerks to the Justices.

The Rules for constituting and regulating the Munitions Tribunals were prepared under great pressure owing to the imminence of the

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXII., 1522.

² *Ibid.*, 2077—2083.

Welsh Coal Strike and came into force as Provisional Rules on 12 July, 1915. The procedure laid down, though generally analogous to that of Courts of Summary Jurisdiction, presented certain important differences. No party to any proceedings before a Local Munitions Tribunal was allowed to be represented by Counsel or solicitor, though a workman might be represented by an officer of his Trade Union. The workmen attached much importance to this provision, but several employers protested that it bore hardly on their managers and foremen, who were often not at all accustomed to state their case coherently or cross-examine witnesses. Complaints could only be made by a person aggrieved, or by, or on behalf of, the Minister of Munitions. If a workman complained that a leaving certificate had been unreasonably withheld by his employer, the procedure was of a less formal nature than in prosecution cases, and evidence on the hearing of these complaints was not usually taken on oath. In order to maintain the domestic character of the court it was provided that a summons to attend might be made by registered letter, not by a police officer.

The General Munitions Tribunals, ten in number, were empowered to deal with all offences under the Act. But in practice they kept almost entirely to matters outside the jurisdiction of the Local Tribunals, and dealt with little except strikes and the employment of workmen without clearance certificates contrary to Section 7 of the Act. The Local Munitions Tribunals, 55 in number, were almost all set up by the beginning of August. They were, however, rather slower in getting to work than the General Tribunals, before which the first prosecution took place on 21 July. Both employers and workmen were said at first to feel hesitation about using the smaller courts, probably through misconceptions concerning the provisions of the Act which related to works rules and leaving certificates, whereas the prohibition of strikes was easier to understand and more urgent to enforce.

The comparatively informal atmosphere of the Tribunals at first led to some disorder among defendants and their friends. The Treasury Solicitor was consulted on the power of a Chairman to keep order in his Court and advised as follows:—"As regards contempts or disorder committed in the face of the Court, I think that a Munitions Tribunal, in common with other inferior Courts, not being Courts of Record, has no power to commit for contempt, even if it be in the face of the Court. The offender may be ordered to be removed from the Court, and the Police would no doubt assist; or if the offender is sufficiently disorderly, he could be ordered to be taken in charge by a constable, to be brought at once before the Justices to be bound over to be of good behaviour." A Home Office circular² of 13 August to Chief Constables urged them to instruct their officers to render all necessary assistance to the Tribunal in their police area and to its clerk, in the same way as to a Court of Summary Jurisdiction and the clerk to the Justices. But the main-

¹ M.W. 31446.

² M.W. 20541/2.

tenance of good order in a Tribunal depended mainly on the chairman's personality after the first novelty of the court had disappeared.

The following table gives the number of cases heard before Munitions Tribunals up to 27 November, 1915¹ :—

(1) PROCEEDINGS ON ACCOUNT OF OFFENCES.

	Number of cases.	Number of De- fendants.	Number con- victed.	Amount of Fines.
<i>Complaints against Workpeople.</i>				
(1) Strike prosecutions (Section 2) ..	22	589	407	£ s. d. 583 1 0
(2) Breaches of works rules (Section 4(5)) ..	786	3,074	2,012	1,649 17 6
(3) Miscellaneous cases	6	9	4	3 10 0
<i>Complaints against Employers.</i>				
(1) Lock-out prosecutions (Section 2) ..	1	1	—	—
(2) Illegal employment of workmen (Section 7)	72	80	55	289 14 6
(3) Miscellaneous	13	13	1	1 0 0
Total	900	3,766	2,479	£2,527 3 0

(2) APPLICATIONS FOR CERTIFICATES UNDER SECTION 7.

Complaints against Employers.

Certificates granted	782
Certificates refused	1,343
No certificates required	119
Applications withdrawn, etc.	770
Total	3,014

The number of cases heard before General Tribunals during this period was 182, and before Local Tribunals (including applications for certificates) 3,732. The total expenditure on the 65 General and Local Tribunals up to the end of November was £6,502.²

Local Courts were essential to enforce the Munitions of War Act. It is doubtful whether any more effective courts could have been devised than the Local Munitions Tribunals. Possibly, as Mr. Duke suggested,³ the enforcement of works rules might have been left to vigilance committees of workmen, such as had been formed on the North East Coast. But this would have been a risky experiment to try on a large scale under circumstances so urgent and critical; and in any case a judicial authority able to hold the balance

¹ Cd. 8143. *Return of Cases heard before Munitions Tribunals.*

² *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 799.

³ *Parliamentary Debates* (1915), *H. of C.*, LXXII., 1523.

between employers and workmen was necessary to deal with clearance certificates. Nor can it be doubted that the Government acted wisely in substituting General Munitions Tribunals for Courts of Summary Jurisdiction to deal with major offences under the Act. The punishment of strikes was a difficult and invidious task ; and if the General Tribunals did not always perform this duty with success, it is at least certain that much greater resentment would have been caused by bringing strikers before the Police Courts. The simple procedure evolved for the Tribunals worked smoothly, and though prosecutions involved some delay and loss of time, no other system of administering justice would have been more expeditious or less costly. The system of deducting fines from wages was simple and effective. The only serious defect was the absence of any court of appeal. The Local Tribunals were entirely independent, and though an appeal to Quarter Sessions was provided where a General Tribunal imposed a fine of £20, this provision was found unsatisfactory and was never used. The principal difficulty lay in the interpretation of the term "munitions work" in relation to leaving certificates. Here varied and sometimes contradictory decisions were given, which caused no little confusion in the minds of employers and workmen, and some embarrassment to the Ministry. The difficulty was met to some extent by circulating the opinions of the Treasury Solicitor on doubtful questions ; but it was not solved until the Amendment Act provided a Court of Appeal and a much fuller and wider definition of the term.

VI. Labour Stealing and Leaving Certificates.

No part of the Munitions of War Act was more unpopular than Section 7, which in effect tied the workman to his employer. Owing perhaps to the form in which it was expressed, the representatives of Labour apparently did not at first grasp the significance of the Section, and it might have passed through Parliament unnoticed, had not Mr. Pringle pointed out its consequences to an impatient House.¹ But before many weeks had gone, it aroused an opposition which rendered amendment necessary in less than six months, and two years later brought about its repeal.

The primary object of Section 7 was to prevent the dislocation of munitions work by the migration of the workman from one workshop or shipyard to another. The shortage of skilled mechanics conferred on them a monopoly of which they naturally took advantage, and the instinct to sell in the dearest market was not restrained by the general belief that Capital was exploiting to the full the needs of the country. Incidentally, therefore, the embargo on freedom of movement limited the advances in wages which in a variety of forms had become prevalent, especially in the armament works of the North.

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXII., 1599.

The shortage of skilled labour was not due only to the indiscriminate recruiting of 1914. The country, indeed, had never any surplus of engineers accustomed to work of precision. But many of these were not in the right place. The restricted distribution of munitions contracts in the early months of the War, the reluctance of many firms to work as sub-contractors for the armament firms, and the national importance as well as the profitable character of manufacture for export limited the number of men available for the production of munitions. Moreover, many skilled mechanics were employed on work which did not require their skill, and others in operating antiquated machines which gave a poor return for the labour they absorbed. But while skill was thus misplaced or wasted, an unprecedented demand arose for it to construct, install, set up and supervise the new machinery essential for naval and military armaments.

Under these circumstances employers, pressed for delivery on urgent war contracts, with work perhaps already in arrear, were not too careful to observe district rates of wages, especially if their contracts were on a "cost and percentage" or "time and line" basis,¹ and offered inducements to attract the men they needed, such as "time and a bit," "Hallelujah rates," or some variety of "war bonus." Such action naturally provoked retaliation, and labour-stealing became widespread, to the cost of the country, if not also the demoralisation of the workmen. Further, since any competent engineer found no difficulty in getting work, he was ready on the least cause, or perhaps through mere restlessness, to throw up his job and go elsewhere. Thus, at a time when direction was above all things necessary, the movement of labour was in a peculiar degree at the mercy of caprice.

The first remedy applied was Regulation 8B, made on 29 April, 1915, under the Defence of the Realm Acts.² It ran as follows:—

"The occupier of a factory or workshop the business carried on in which consists wholly or mainly in engineering, shipbuilding, or the production of arms, ammunition or explosives, or of substances required for the production thereof, shall not, nor shall any person on behalf of the occupier of such a factory or workshop, either directly or indirectly, by canvassing, advertisement or otherwise, take any steps with a view to inducing—

- (a) any person employed in any other factory or workshop, being a person engaged on work for any Government Department or otherwise serving war purposes, to leave his employment; or

¹ *I.e.*, a contract in which payment is based upon the cost of production in labour and materials, plus an allowance for on-cost or overhead charges, plus a percentage for profit.

² See Vol. I., Part III., Chap. V., Sect. VII.

- (b) any person resident in the United Kingdom at a distance of more than ten miles from the occupier's factory or workshop, to accept employment therein, otherwise than by notifying vacancies to a Board of Trade Labour Exchange ;

and in the event of any person contravening the provisions of this Regulation he shall be guilty of an offence against these Regulations."

It will be observed that this Regulation did not affect employers unless they were engaged in engineering, shipbuilding or the production of munitions. Thus a mill-owner or a brewer might with impunity entice a mechanic from the Arsenal. Secondly, in order to convict it was necessary to prove that inducement had been offered. This was so difficult that the Board of Trade did not succeed in bringing a single prosecution, although the evil was a matter of general complaint. The Regulation no doubt made employers more careful; it checked advertisement and caused many who had hitherto stood aloof to request the help of the Labour Exchanges, which was a necessary step towards the co-ordination of supply and demand. But it left the workman free to move as he pleased, and the employer to advance wages if he chose.¹

A more drastic provision was made in the Munitions of War Act, Section 7.

"(1) A person shall not give employment to a workman, who has within the last previous six weeks . . . been employed on or in connection with munitions work in any establishment of a class to which the provisions of this section are applied by Order of the Minister of Munitions, unless he holds a certificate from the employer by whom he was last so employed that he left work with the consent of his employer or a certificate from the munitions tribunal that the consent has been unreasonably withheld.

"(2) If any workman or his trade union representative complains to a munitions tribunal in accordance with rules made with respect to those tribunals that the consent of an employer has been unreasonably withheld that tribunal may, after examining into the case, if they think fit, grant a certificate which shall, for the purposes of this section, have the same effect as a certificate from the employer.

"(3) If any person gives employment in contravention of the provisions of this section, he shall be guilty of an offence under this Act."

The Bill received the Royal Assent on 2 July, and the Order² which was necessary to bring Section 7 into operation was signed by

¹ C.O. Circ. 1809, 1836. ² *Statutory Rules and Orders*, 1915, No. 839.

the Minister on 14 July. The class of establishments to which its provisions applied was defined as :—

“ Any establishment being a Factory or Workshop the business carried on in which consists wholly or mainly in engineering, shipbuilding, or the production of arms, ammunition or explosives, or of the substances required for the production thereof.”

The definition in Regulation 8B was adopted in the Order, because it had already been the subject of consideration and interpretation.¹ Its scope was narrower in some respects than the definition of munitions work in Section 3 of the Act,² in that it did not cover vehicles, aircraft or other articles required for use in war such as wool or boots. In other respects it was wider, inasmuch as it included coal, benzol, toluol and other substances required for the production of explosives. Since, however, Section 7 applied only to workmen employed on “ munitions work ” in establishments specified by the Order, its scope was narrower than that of either the definition or the Order taken separately, and neither of them was easy to interpret. Thus not only were important munitions and essential materials excluded from the benefits of the Section, but great confusion was created in the minds of workman and employer concerning the intention of an enactment, which imposed a serious disability on the one and rendered the other liable to a penalty of £50.

VII. Difficulties in the Administration of Section 7.

In the administration of Section 7 the Ministry was able to do little more than give advice. Unfortunately no power was taken in the Act to make rules with respect to leaving certificates ; and Local Munitions Tribunals could only deal with such individual cases as were brought before them by issuing, or refusing to issue, a certificate that consent to leave had been unreasonably withheld by the employer. But there was no authority to prevent managers or foremen from misusing the new power conferred upon them in a thoughtless or arbitrary way, or to penalise them for such misuse.

As early as 4 August Mr. Paterson, Chief Labour Officer for Scotland, warned³ the Ministry of the trouble impending. Already a number of skilled workmen were walking the streets unemployed, because they could not satisfy prospective employers that they had left their previous employment with the employer's consent. “ It is only now that employers are beginning to understand the operation of Section 7 (1), but even those who have thought of it appear to be considering only one part of its application, *i.e.*, the right that it confers on them to retain their men in their employment and the fact that any other firm which engages the workman without a certificate is guilty of a contravention of the Act. I have not yet heard of an employer,

¹ M.W. 21985.

² See p. 2.

³ M.W. 23447/3.

large or small, who is adopting the practice of issuing certificates of consent under Section 7 (1).” Consequently, not only men who had left an unfinished job or had been dismissed for fault, but those who had been discharged on the completion of their job were going about in considerable numbers unemployed.

The Ministry therefore considered the possibility of inserting rules in respect of leaving certificates among the rules made for controlled establishments under Section 4 (5) of the Act.¹ But this proposal was dropped. It was not certain that rules so embodied would have legal force; and either Section 7 must be limited to controlled establishments, or else it would operate under different conditions according as a firm was controlled or not. The hostility of Labour to the leaving certificate would no doubt have been modified, if the embargo on the workman’s liberty had been directly associated with control of the employer, and many of the difficulties incident to the interpretation of the Act and the Order would have been avoided by this limitation. To rescind the Order so soon, however, would have been awkward and perhaps impolitic, and, since only 535 establishments had been declared controlled by 18 August, many important sources of supply would have been exposed to the evils which the leaving certificate was intended to cure.

Since rules could not be made, a memorandum was prepared, explaining the operation of Section 7, and advising employers what they should do if they discharged a workman or refused consent to his leaving. In a covering letter,² dated 1 September, to the Secretaries of the Engineering and Shipbuilding Employers’ Federations special attention was drawn to the latter points. “The Minister regards it of great importance that when a certificate is refused, the workman should, if he so desires, be retained in the employer’s service, and that certificates should never be withheld when a workman is dismissed.” The Federations were therefore requested to impress these points on their members. Nevertheless some employers continued to use the power conferred on them by Section 7 to penalise a workman for an alleged fault by suspending him from work or discharging him, and in either case refusing a certificate. Even men suspended for some time owing to want of material were denied certificates. Other employers made a practice of refusing to issue certificates and so forced men with good reasons for wishing to leave to apply to the tribunal—a procedure which involved delay and irritation. Others again, by attempting to convert the certificate of consent into a character note, awakened intense suspicion and prejudice.³ The department endeavoured to check these abuses by correspondence, and the tribunals to remedy them by granting certificates; but many cases did not reach the department or the tribunals and the harm done by arbitrary or thoughtless action was never overtaken.

¹ M.W. 21985/4.

² M.W. 21985/6; cf. M.W., 56150. *Parliamentary Debates* (1915), *H. of C.*, LXXIV. 1616.

³ Cf. M.W. 21985/13. It is not suggested that the conduct of these employers was typical. But such action though exceptional, soon became widely known and provoked general discontent.

The evasion of the Act by the workman raised an administrative problem of a different kind. It was not an offence for him to seek and obtain employment without a certificate, although his employer was thereby exposed to prosecution. Such evasion was not difficult in large industrial districts before the provisions of the section were generally understood, and was never entirely prevented. But on 20 August, 1915, a new regulation¹ was made under the National Insurance Act, by which the employer was required to deliver to the Labour Exchange the unemployment book of any insured workman subject to Section 7 who left work without a certificate. The manager of the Exchange was instructed to retain books so lodged for six weeks, unless in the interval a certificate was produced either from the employer or from the tribunal. This procedure facilitated the tracing of the workman, since he could not secure employment at his trade without recovering his book or obtaining in place of it a temporary book. Although the manager could not refuse the latter, the workman could hardly obtain it without making a false statement and so contravening Section 12 of the Act. Thus it was rendered difficult for a skilled workman in the engineering and shipbuilding trades to evade Section 7; but no such obstacle stood in the way of men in the uninsured trades. A proposal was indeed made that health insurance cards should be deposited like unemployment books at the exchanges. But this was considered too risky an expedient to adopt.²

The Ministry did not attempt to enforce Section 7 against offending firms. It was thought that the Act would be sufficiently vindicated if the aggrieved employer was left to prosecute. Prosecutions were not numerous, since as a rule men who left without certificates were either never traced or else discharged as soon as their new employers found that they were contravening the Act. Although it was easier to bring a charge under the Act than under Regulation 8B, since only the bare fact need be proved that an uncertificated workman subject to Section 7 had been employed, yet the plea of ignorance in conjunction with the difficulty of determining the scope of the prohibition naturally affected the assessment of the penalty.

CASES UNDER SECTION 7 (1) AND (3) HEARD BEFORE MUNITIONS TRIBUNALS, 1915.³

	Con- victed.	Dis- missed.	With- drawn.	Total.	Fines.
					£ s. d.
August, 1915	—	3	—	3	—
September	24	9	5	38	104 6 6
October	23	1	4	28	147 8 0
November	8	1	2	11	38 0 0
December	66	2	1	9	5 10 0
Total	61	16	12	89	£295 4 6

¹ M.W. 21985/14; C.O. Circ. 1985, 26/8/15; M.W. 23447. ² M.W. 21985/15.

³ Cd. 8143, Cd. 8360. *Return of Cases heard before Munitions Tribunals.*

Prosecutions under Section 7 came before General Munitions Tribunals, but the bulk of the work entailed by the Section fell upon the Local Munitions Tribunals, whose province it was to decide whether a workman required a leaving certificate, and if so, whether it had been unreasonably withheld by his employer. This involved not only difficult questions of interpretation, but questions no less difficult concerning the relative claims of public expediency and private hardship, the genuineness of pleas of ill-health and family obligation, and the extent to which the Act overrode trade customs and rights. The reasons most commonly advanced by applicants for certificates were illness or physical incapacity, the necessity of maintaining two homes, the time consumed in travelling to and from work, and the opportunity of earning higher wages. The validity of the first three reasons depended on the particular facts: the fourth was, as a rule, set aside, unless the workman proved that he was receiving less than the district rate, or that he was employed on work which he did not contract to do, or that his skill would be more fully used elsewhere. In dealing with these questions there was, naturally, some diversity of practice, some tribunals inclining to support the employer whenever he urged that a man was indispensable, others being more affected by cases of individual hardship. But there is reason to believe that, on the whole, this work was done with discrimination and fairness.

APPLICATIONS UNDER SECTION 7 (2) FOR CERTIFICATES, 1915.¹

	Granted.	Refused.	With- drawn.	Cer- tificates un- necessary.	Total.
August, 1915	23	55	31	1	110
September	153	300	90	17	560
October	347	581	383	44	1,385
November	259	407	266	57	989
December	208	356	270	65	899
Total	990	1,699	1,040	184	3,913

The administration of Section 7 was much hampered by questions of interpretation. Not only was the meaning of the Act and the Order obscure, but the decisions of the Tribunals, not being subject to any effective appeal,² varied, and sometimes even contradicted one another. Many employers did not know whether their workshops, or which of their employees, were subject to the Section, and were indignant because the Ministry could give no binding answer to their questions, but only refer them to a Tribunal, whose decision.

¹ Cd. 8143. Cd. 8360.

² There was no appeal from the decision of a Local Munitions Tribunal. A person fined £20 or more by a General Munitions Tribunal might appeal to a Court of Quarter Sessions; but this right was never exercised.

Clause 7 as originally drafted provided for an Appeal Tribunal; but this provision was struck out as making for delay.

if unfavourable, might damage their business. For not only would their workpeople be free to leave, but they might seek employment elsewhere on work which was indubitably munitions. This uncertainty was no less irritating to the workmen. It is, indeed, probable that very serious confusion would have arisen from conflicting decisions had not some uniformity been secured by circulating in October to the Chairmen of Tribunals opinions given by the Treasury Solicitor and the Law Officers of the Crown on important points of law and practice under the Act.¹

• The more important questions were the following :—

(1) Only “workmen” required leaving certificates. Did this term cover all employees, or should it be construed in the ordinary and popular sense? The Treasury Solicitor took the view² that since the Act, Section 15 (4), distinguished between “a person employed” and “a workman” the term “workman” meant “a person who substantially does his work with his hands, or, at all events, by physical exertion.” Consequently, not only foremen, but draughtsmen, clerks, and other persons essential to the works organisation were excluded.

(2) In the definition of “munitions work” in Section 3 of the Act should the words “or any other articles required for use in war” be construed as including only things of the same kind as “arms, ammunition, ships, vehicles, aircraft,” or did they cover anything required for use in war, such as periscopes, optical instruments, compasses, medical stores, camp kettles, braziers, camel tanks, khaki, boots? If the wider meaning were accepted, the manufacture of textile machinery or hosiery needles might be reckoned as munitions work. The Treasury Solicitor favoured the wider interpretation,³ holding that the rule *ejusdem generis* was inapplicable. But although things remotely connected with the War were thus brought in, it was found impossible to include the generation of electric power or gas, by which a large part of the munitions machinery was driven, the production of toluol and other basic materials of explosives, the construction of munitions factories, the manufacture of optical glass, or of the silica and magnesite bricks essential for making steel, or the getting not only of coal, but of ironstone, limestone, ganister, and other necessary minerals.

(3) Did occasional employment “on or in connection with munitions work” bring a workman within the ambit of Section 7? The Treasury Solicitor replied⁴ that it must be substantial employment although it need not be continuous. He also considered that the words “in connection with munitions work” should not be understood to cover employ-

¹ M.W. 55092.

² M.W. 28070; cf. M.W. 21985/12.

³ M.W. 32684.

⁴ M.W. 55092.

ment in an establishment other than that in which the munitions work was carried on.

(4) Did the words "employed . . . in any establishment" include the outworkers of a firm (*e.g.*, of machine tool makers) which came within the Order, or the workmen employed in a munitions factory by a firm (*e.g.*, of building contractors) which was not covered by the Order? The point was doubtful, but the Treasury Solicitor inclined to the view¹ that "establishment" meant the whole of a business in all its activities and not merely the premises and plant. Consequently, any work wherever physically performed which was done in the course of the establishment's business was done "in the establishment" for the purposes of the Section. Thus the outworkers installing machine tools might require leaving certificates, while the builder's workmen extending a munitions factory would not.

(5) Should "engineering" in the Order be construed in a wide or a narrow sense? Should it be limited to the manufacture of machinery, or defined as in the charter of the Institute of Civil Engineers as "the art of directing the great sources of power in nature for the use and convenience of men"? Or, if the former definition was too narrow and the latter too wide, where should the line be drawn? In particular, did it cover the founding of metals, and the manufacture of wire, chain, nuts, bolts, screws, and other essential goods?

Such difficulties as these in conjunction with the pressure from employers and the departments responsible for supply compelled the Ministry in September to consider the possibility of widening the scope of Section 7. Three courses seemed possible; either the Order, or Regulation 8B, or the Act might be amended. It was first proposed either to amend the Order² by making it co-extensive with the definition of munitions work in Section 3 of the Act, or to amend the Regulation³ by applying it to all employers and to men employed in any establishment engaged on work necessary for the production of war material, by substituting employment for inducement as the offence to be proved, and by giving the Minister of Munitions concurrent powers with the competent naval or military authority so that he or any person with his consent might prosecute.⁴ But these suggestions were set aside by the discovery that an amending Bill was necessary for other purposes. On 22 September the Law Officers of the Crown stated⁵ that, having regard to the

¹ M.W. 69007/2.

² M.W. 21985/8.

³ M.W. 21985/9.

⁴ Hitherto prosecutions could only be set on foot by the competent naval or military authority. But on 15 February, 1916, by an amendment of Regulation 56 (14), the Minister was empowered to declare an offence against the Regulations in respect of any matter within the scope of the powers and duties for the time being assigned to him to be a "munitions offence." If a person was alleged to be guilty of such an offence, his case was referred to the Director of Public Prosecutions for enquiry and action. M.W. 1374/13.

⁵ M.W. 21985/9.

structure of Part II. of the Munitions of War Act, they were of opinion that Government Factories could not be declared controlled establishments under its provisions. Consequently, it was not possible to secure in them the abolition of restrictive rules, practices, and customs under Section 4 (3) or the power of enforcing regulations made under Section 4 (5). If it was desired to apply the Act to such factories, further legislation would be required. The Ministry decided that an amending Bill should be taken in hand at once. This was perhaps fortunate, since events were happening in the North which presently made it clear that the extension of Section 7 was by no means the only change it required.

In spite of these defects and the irritation which some of them caused, the great value of Section 7 must not be forgotten. Many employers regarded it as the most useful part of the Munitions of War Act¹; and there can be no doubt that it prevented much serious disorganisation of munitions work through the nomadic propensity and intolerance of discipline which the shortage of mechanics, the pressure of war contracts, and the relaxation of the motive to economy produced in the spring of 1915. At the same time it checked the tendency to exploit the scarcity of labour and demand advances in wages, which would have upset district rates, provoked jealousy and unrest, and increased the cost of munitions to the Country.

VIII. Increase in the number of Controlled Establishments.

Apart from the suspension of the right to strike, and the limitation of the right to leave, the restrictions imposed by the Munitions of War Act on Labour were confined to controlled establishments. Much wider powers indeed were conferred on the Minister by amendments² to the Defence of the Realm Acts, but these were not put into operation on account of the pledges given to the Trade Unions that the suspension of all rules, practices, and customs which tended to restrict production or employment and the enforcement of rules relating to order, discipline, time-keeping and efficiency should take effect only in establishments in which the profits were limited and on which a statutory undertaking was imposed to restore the *status quo ante bellum* at the end of the War and to observe the other conditions specified in the Second Schedule of the Act.

It was originally intended to control only the principal armament and shipbuilding firms. The first Order was made on 12 July, 1915, comprising 134 establishments; and at the time it was thought that this number would not eventually be more than doubled. But this expectation was soon falsified. On the one hand, the problem of

¹ Representatives of the Shipbuilding and Engineering Employers' Federations stated on 2 December, 1916, that if Section 7 were repealed the whole essence would be taken out of the Act. M.W. 58604/44.

² Art. 3 of Ministry of Munitions Order in Council, 1915, and Section 10 Munitions of War Act, 1915.

securing adequate supplies of destructive munitions was seen to depend on the extension and acceleration of the production of machinery and materials ; and it appeared that grave injustice might be done if some firms were selected for control while their competitors remained uncontrolled, those which gave up private business for munitions work losing their goodwill and surrendering part of their profits, while their rivals were free to exploit the market and build up reserves. On the other hand, the success of the labour policy of the Act depended on a wide extension of control. War Munition Volunteers could be supplied only to controlled firms ; the relaxation of restrictions on output presupposed control ; and the workmen were more ready to believe that they were engaged on work of national importance in controlled establishments, especially where the product did not fall within the popular conception of munitions.

The first departure from the original scheme was made by controlling all machine tool works, including a large number of small firms, on the recommendation of the Machine Tool Committee. The process was rapidly extended, although it was limited in certain directions by the definition of munitions work. Thus, owing to the combined pressure of the contracts and supply departments of the Admiralty, the War Office and the Ministry, of the workmen who practically insisted on working in establishments that were controlled, and of the employers, who, confronted with a choice between the Munitions Levy and the Excess Profits Tax, realised the steadying effect of control on labour, the number of establishments declared controlled increased from 134 on 12 July, 1915, to 345 on 6 August, 714 on 6 September, 979 on 4 October, 1,346 on 3 November, 2,026 on 6 December, and 2,422 on 1 January, 1916. A census taken in the middle of November, 1915, showed that 1,181,100 persons, including 103,300 women and girls, were employed in establishments then controlled and the Royal and National Factories and Dockyards.

IX. The Munitions (Ordering of Work) Regulations and Model Rules.

The regulation of labour in controlled establishments depended on the following provisions in the Munitions of War Act :—

“ 4 (3) Any rule, practice, or custom not having the force of law which tends to restrict production or employment shall be suspended in the establishment, and if any person induces or attempts to induce any other person (whether any particular person or generally) to comply, or continue to comply, with such a rule, practice, or custom, that person shall be guilty of an offence under this Act (the penalty being a fine not exceeding £50).

“ (5) The employer and every person employed in the establishment shall comply with any regulations made applicable to that establishment by the Minister of Munitions

with respect to the general ordering of the work in the establishment with a view to attaining and maintaining a proper standard of efficiency and with respect to the due observance of the rules of the establishment. If the employer or any person so employed acts in contravention of or fails to comply with any such regulation, that employer or person shall be guilty of an offence under this Act (the penalty being a fine not exceeding £3)."

It will be noticed that the only offence specified in Section 4 (3) is the attempt to induce another person to comply with a restrictive rule or custom; consequently workmen who insisted on observing such customs did not become liable to any penalty, unless they contravened a rule made under Section 4 (5), and forbidding the observance of restrictive practices.¹

In order to give controlled establishments the benefits of the Act without delay, the Minister made the following Regulations on 14 July, 1915, to come into operation forthwith as Provisional Rules, with respect to the general ordering of the work in a controlled establishment:—

"(1) The owner of any Controlled establishment shall as soon as practicable post rules relating to order, discipline, time-keeping, and efficiency conspicuously in his establishment so as to bring them effectively to the knowledge of workmen employed therein. Copies of rules so posted shall be sent to the Minister of Munitions.

"(2) Every person employed in the establishment shall comply with any rule so posted; provided that no person shall be liable to a penalty under the Act for failing or refusing to comply with any rule, if the Munitions Tribunal is satisfied that the rule is an unreasonable one, or that the person had just cause for his failure or refusal to comply with it."

Thus the Ministry imposed upon the employer the responsibility of framing works rules, and left the Munitions Tribunal to safeguard the workman against their proving unreasonable. This policy was adopted because it was felt that discipline in the workshops should be reinforced by the Act without delay. But delay could hardly be avoided, if rules were not posted until they had been approved by the Minister—a procedure which would involve correspondence and perhaps local enquiry. Nor was the Ministry prepared to draft model rules without careful consideration. Otherwise, they might turn out ill-suited to a variety of local and industrial conditions and customs. But haste did not effect speed. Many firms were reluctant to post rules unless they could state that they had been approved by the Minister. As Mr. F. N. Henderson, speaking on behalf of the

¹ Because no such rule had been posted, it was not possible to prosecute the men at Messrs. Lang's, who refused to permit the introduction of women at the end of August, 1915. See Part I., Chap. III., Sect. IV.

Shipbuilding Employers' Federation,¹ told Mr. Lloyd George on 12 August, "we desire to put them up by your authority, because we feel, in fact we are certain, that if we were to put them up as rules emanating from ourselves, taking into account the present temper of the men, every one of the rules will be cavilled at, will be criticised, and will cause friction." Others did not understand what kind of rules the Ministry wanted, and posted either a general statement under which no case could be brought before a Tribunal, or else quotations from the Act. Some assumed that the Ministry would supply rules and did not attempt to frame any. Others feared lest the Tribunal might consider their rules unreasonable, and so make matters worse than before.² Thus a month passed without any progress.

The Ministry's policy was based on the assumption that firms generally were accustomed to prescribe a code of shop rules and insist on their observance. But, in fact, their practice was irregular and anomalous. Most firms no doubt had shop or yard rules; but often they were merely a heterogeneous set of orders, dealing in detail with small points of workshop practice, many accidental, some obsolete. Ostensibly they were enforced by fines, suspension or dismissal, but in reality they were frequently in abeyance. Fines in particular were much resented as a mark of servility, and where trade unionism was strong they were rarely inflicted. Discipline, as is usual in this country, rested on personal authority and unwritten sanctions.

The situation was complicated because the Engineering and the Shipbuilding Employers' Federations advocated different lines of action. The former preferred to draw up and recommend to their members an elaborate code of rules prescribing in detail what might and what might not be done by persons employed in their establishments.³ They desired no official support and were prepared to leave these rules to the judgment of the Munitions Tribunals. Different and, as the event proved, sounder advice was tendered by representatives of the Shipbuilding Employers' Federation, who met Mr. Lloyd George on 12 August.⁴ They urged first, that the posting of rules under the Act would only cause cavilling and friction unless they were issued as approved by the Minister; and secondly, that the ordinary yard rules should be kept quite distinct from rules made under the Act and enforceable by Munitions Tribunals. With respect to the latter, Mr. Henderson said: "If we were to embody in them all our various, what I may call, domestic rules, for carrying on the ordinary discipline of the yard under the cloak of the Munitions Act, the men would at once say, 'Oh, here are the employers endeavouring to get all their own domestic rules carried through by force of law.' We say that would be a great mistake; it would only be courting trouble."⁵ The Federation accordingly submitted to the Minister for his approval a draft of rules which, in their opinion, would be suitable to all shipbuilding establishments.⁶

¹ HIST. REC./R/300/9.

² M.W. 30692.

³ M.W. 36921. See Appendix I.

⁴ HIST. REC./R/300/9.

⁵ HIST. REC./R/300/9.

⁶ M.W. 30692.

The Ministry, therefore, decided to make model rules. These followed the lines suggested by the shipbuilders, and after some small changes proposed by the Admiralty and the National Advisory Committee were approved on 18 August, 1915, by Mr. Lloyd George.¹

Rules for Controlled Establishments relating to order, discipline, time-keeping, and efficiency, approved by the Minister of Munitions, and posted by the owner in accordance with the Munitions (Ordering of Work) Regulations, in pursuance of Section 4 (5) of the Munitions of War Act, 1915.

1. *Application.* These Rules shall apply to every person employed in the.....being a Controlled Establishment under Section 4 of the Munitions of War Act, 1915, and Schedule II. of the Act. The posting of these Rules conspicuously in the establishment in accordance with the Regulations shall be deemed to be due notice of their contents to persons employed therein.

2. *Regularity and Diligence.*—Every person employed in the establishment, whether on time, piece, or otherwise, shall attend regularly and work diligently during the ordinary working hours of the establishment, and a reasonable amount of overtime (including week-end work) if required,² unless he has previous leave of absence for holidays or otherwise, or is prevented by sickness or some other unavoidable cause which shall be immediately reported.

3. *Suspension of Restrictions.*—No person employed shall insist or attempt to insist on the observance, either by himself or by any other person employed, of any rule, practice, or custom tending to restrict the rate of production on any class of work, or to limit the employment of any class of person, or otherwise tending to restrict production or employment.

4. *Sobriety and Good Order.*—No person employed shall :—

- (a) Be the worse for liquor in the establishment or bring intoxicating liquors into the establishment.
- (b) Refuse or neglect to obey the lawful orders of any person having authority over him.³
- (c) Create or take part in any disturbance in the establishment, or use abusive language or otherwise interfere with or annoy any other person employed in the establishment.

¹ M.W. 29515/3 ; 29515/4.

² This clause appeared in the first draft as a separate rule as follows :—
“ *Overtime.*—Every person employed shall work overtime (including week-end work) when and to the extent required.” The National Advisory Committee proposed to omit this rule and insert in Rule 2 the words “ and a reasonable amount of overtime if required,” thus excluding the refusal to work on Sunday from the scope of the Rules.

³ In the first draft this appeared as a separate rule under the heading *Discipline*. It was transferred to its present position without the heading on the suggestion of the National Advisory Committee. M.W. 29515/3.

- (d) Tear down or deface any regulations, rules or other notices posted in the establishment in pursuance of the Munitions of War Act.

5. *Saving for other Shop Rules.*—Nothing in these Rules shall affect any other Shop Rules made by the owner of the Establishment or his power to impose fines for breach of such Rules subject to the provisions of the Truck Acts. Provided that no fine shall be imposed under any such other Rules for any offence which has been brought before a Munitions Tribunal.

Any person convicted of a breach of any of these Rules is liable on conviction before a Munitions Tribunal to a fine not exceeding £3 for each offence.

In the last week of August these rules were sent out to all controlled firms other than members of the Engineering Employers' Federation under cover of an official letter,¹ which explained that on further consideration the Minister had thought it desirable to issue for the guidance of employers Model Rules.

"Should you desire to do so you are authorised to make and post these Rules as they stand, with the statement that they are approved by the Minister of Munitions. Should you desire to suggest for the approval of the Minister any alterations of or additions to the Model Rules he will be prepared to consider these. . . . If you have already made and posted Rules in accordance with the Munitions (Ordering of Work) Regulations, you are under no obligation to replace such rules already made by the present Model Rules. You will understand, however, that no Rules must be posted with the statement that they are "approved by the Minister" unless they are identical with the Model Rules now enclosed or have been specifically submitted to and approved by the Minister."

The Minister was prepared to consider only such reasonable modifications or extensions as would clearly fall under the several headings of the Model Rules, but he could not undertake to approve either radical alterations of their scope or minutely detailed regulations concerning the reasonableness of which he was not in a position to be fully satisfied.

On 20 August the Ministry received from the Engineering Employers' Federation a copy of the code² framed for the use of the federated firms, with an enquiry whether the Minister disapproved of the provisions of any of these rules. On 31 August the Ministry replied as follows:—

"It is the intention of the Regulations made under Section 4 (5) of the Act that the various employers shall frame

¹ M.W. 29515/4.

² M.W. 36921. See Appendix I.

and post such rules as they themselves think fit, subject to the safeguard that if any rule appears to a munitions tribunal to be unreasonable, no penalty will be inflicted by the tribunal for its breach."

"In the first instance the Minister was disposed to leave the framing of rules entirely to individual employers or their Associations. Recently, in consequence of representations received by him, he has been led to reconsider this decision, and has himself prepared model rules (a copy of which has been forwarded to you) which may be adopted by any employer desiring to do so. In this event the Rules may be posted as approved by the Minister. I am, however, to add that there is no compulsion whatever on any employer to adopt these model rules, and it is, accordingly, open to any member of your Federation to adopt either the model rules circulated by the Minister, or those circulated by your Federation, or to make rules of his own."

"While, therefore, the Minister does not feel in a position to express approval or disapproval of the provisions of the model rules submitted by you, he considers that the preparation of a code of model rules by your Federation was a useful step in the direction of uniformity, and that the action of your members in posting these rules is in accordance with the Regulations, provided of course that they are not described as approved by the Minister."

Many controlled firms were in no hurry to adopt the Model Rules, or indeed to post rules at all in accordance with the Regulations of 14 July, as the following figures show. But gradually they came into line owing to pressure from the Ministry and the discovery that prosecutions for bad time-keeping or insubordination could not be brought before a Munitions Tribunal, unless the employer could prove that rules had been duly posted.

ESTABLISHMENTS WHICH HAVE POSTED RULES IN ACCORDANCE WITH
THE MUNITIONS (ORDERING OF WORK) REGULATIONS, 1915.

	17 Sept., 1915.	15 Oct., 1915.	4 Dec., 1915.	1 Jan., 1916.
Model Rules only	122	477	800	1,168
Model Rules with variation	1	9	21	22
Own Rules	18	75	116	120
Model Rules and Own Rules	30	109	303	349
Federation Rules	33	50	64	76
Total	203	720	1,304	1,735
Number of establishments declared controlled on or before	714 6 Sept., 1915.	979 4 Oct., 1915.	1,679 8 Nov., 1915.	2,026 6 Dec., 1915.

The posting of rules other than the Model Rules caused no little friction and some serious unrest. The workmen resented the idea that the State should intervene to enforce rules framed by employers or their federations. Many codes made no distinction between shop rules, forbidding, for example, the misuse of waste, oil or oakum, taking chips out of the works, smoking during working hours,¹ or congregating at the gangways before the sounding of the works buzzer,² and rules affecting conduct more reprehensible and injurious to efficiency. Offences of all sorts were made subject to the same arbitrary penalties:—“(a) a fine of 2s. 6d. for each offence, or (b) dismissal with forfeiture of wages, or (c) prosecution under the Munitions of War Act—maximum penalty £3.”³ More serious was the workman's suspicion that under cover of the Munitions of War Act the employer was seeking to introduce changes which had long been matters of prejudice and controversy. Thus among the rules suggested by the Engineering Employers' Federation and adopted by some of their members were the following⁴:—

“All persons employed shall work on piece work or the premium bonus system, as and when required by the Company, times rates in the case of piece work being guaranteed.

“Deductions will be made from wages for all bad, negligent, uncompleted or untested work, or injury to any material or property.

“All time lost shall be made up before overtime is reckoned.”

But the principal cause of irritation was a rule introducing a system of petty fines for loss of time. “Persons losing $2\frac{1}{2}$ hours or less shall be liable to a fine not exceeding 6d. per hour. Persons employed losing more than $2\frac{1}{2}$ hours but not exceeding 5 hours per week shall be liable to a fine not exceeding 1s. per hour for each hour or part of an hour so lost. Persons employed losing more than 5 hours per week shall be liable to a prosecution under the Munitions of War Act, 1915.”⁵ This rule caused great unrest in Sheffield and elsewhere. At a meeting with the A.S.E. on 17 September Mr. Lloyd George's attention was specially drawn to it by Mr. Brownlie, who said⁶: “Fining a man sixpence for every hour he loses is contrary to all traditions. While we recognise that the object of the Act is to secure that the workman shall be regular in his time, we think the imposition of such fines is calculated not only to create unnecessary irritation and discontent, but to defeat the real object of the Act.”

On 2 September Mr. A. Shaw, local delegate of the A. S. E., reported as follows⁷:—

“In Sheffield and district the members are indignant in consequence of the arbitrary rules that have been posted in the respective workshops intimating that fines will be inflicted in cases of lost time and for other reasons, and there has been the greatest difficulty in persuading the men from

¹ C.E. 983/2. M.W. 64985.

² C.E. 135 2.

³ Appendix I., Rule 21; M.W. 36921.

⁴ Appendix I., Rules 5, 9 and 3.

⁵ Appendix I., Rule 3.

⁶ Hist. Rec./R/320/4.

⁷ A.S.E. *Journal and Report*, Sept., 1915, p. 25.

downing tools until we have had an opportunity of consulting with the employers upon the matter, and considering the strenuous efforts and the abnormal hours the men are working the posting of notices is looked upon as an insult to their intelligence, and is bitterly resented."

Fortunately a local conference was arranged before a strike occurred, and although no settlement was reached the employers agreed to suspend the imposition of any fines, pending the result of reference to the Central Conference at York. At this conference, which took place on 8 October, the matter was adjourned for further consideration at the next conference on 12 November. But this also was abortive. The Federation would not recommend the withdrawal of the obnoxious shop rules, and the Sheffield workmen were as determined as ever that they would not submit to the infliction of fines.¹ Serious trouble was only averted by the decision of the Minister to amend the Regulations of 14 July.²

Similar difficulties occurred at Halifax in the first week of September, and the men actually struck work in three establishments. As a result of shop deputations the firms consented to suspend the new rules for the time being and work was resumed. The local delegate of the A.S.E. then obtained an interview with the Employers' Association, which agreed to make the rules inoperative in all their shops pending settlement by the Central Conference. But before this took place, another local conference was held at which it was resolved to bury the unpopular code and substitute for it the Model Rules issued by the Ministry of Munitions.³

X. The Enforcement of Works Rules by Munitions Tribunals, 1915.

The work done in 1915 by Munitions Tribunals in enforcing the rules of controlled establishments is indicated by the following figures :

CASES UNDER SECTION 4 (5), OFFENCES IN CONTROLLED ESTABLISHMENTS, 1915.⁴

	Defendants.				Number of Cases.	Fines.		
	Con- victed.	Dis- missed.	With- drawn.	Total.				
August	34	7	4	45	8	£	s.	d.
September ..	274	112	217	603	126	28	17	6
October	834	150	226	1,210	313	169	2	0
November ..	870	215	143	1,228	351	734	3	6
December ..	759	140	181	1,080	327	717	13	6
Total	2,771	624	771	4,166	1,125	623	4	0
						£2,273	0	6

¹ *A.S.E. Journal*, Nov., p. 52; Dec., p. 41.

² *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2049.

³ *A.S.E. Journal*, October, 1915, p. 31.

⁴ *Return of Cases heard before Munitions Tribunals*. Cd. 8143. Cd. 8360.

The majority of these cases were charges of bad time-keeping and absence from work. The remainder comprised charges of drunkenness, gambling, insubordination, bad language, refusal to work overtime and restriction of output. It will be observed that the average fine was 16s. 6d., and that the charges against one-third of the defendants were withdrawn or dismissed. Nor should it be forgotten that the number of establishments controlled rose from 345 on 6 August to 2,026 on 6 December, and towards the end of the period not less than one million workpeople were affected.

Much the most difficult problem to deal with was time-keeping. The amount of time lost, which could be accurately ascertained from the wages book, afforded sensational figures and an easy text for sermons to the working classes. But, unfortunately, few firms had attempted to analyse statistically the causes at work and their relative contribution to the aggregate of hours lost.

The principal immediate cause of lost time in 1915, if not always, was sickness. Apart from the incidence of normal ailments and disease, the average standard of health in the munitions industries was lowered by overwork and the influx of persons of poor physique in place of the young men who had joined the Forces. Excessive overtime and Sunday labour, for which the Departments of State were at least as responsible as the employers, told severely on women, elderly workmen, and many of the semi-skilled machinists and labourers whose constitution and character had never been robust. The strain of long hours in the factory was often aggravated by living, or rather sleeping, in overcrowded lodgings and by travelling long journeys to and from work. Next to sickness late trains and full tramcars accounted for much loss of time for which the individual could not be held responsible. These causes alone, if they had not been counteracted by the spirit and determination of the workpeople, would have produced a large excess over the hours normally lost before the War.

On the other hand, overtime and Sunday labour and the methods by which they were paid for, especially in the shipyards and among piece-workers, offered a strong inducement to lose part of the ordinary hours. The loss of the first quarter before breakfast or the whole of Monday was more than compensated by working overtime in the evening or on Sunday at higher rates of pay. Perhaps indeed the arduous nature of the work almost compelled the riveter or the caulker to defend himself in this manner when continuous overtime and Sunday labour were exacted of him. At any rate there can be no doubt that after due allowance is made for bad weather a large part of the time lost in shipyards during the War must be explained in this way. The following figures may be considered typical :—

HOURS WORKED BY SHIPWORKERS.¹

	Week ending 29 July, 1914		Week ending 12 May, 1915	
	Daytime hours.	Overtime hours.	Daytime hours.	Overtime hours.
Riveters	50	—	41·5	15
Drillers	51½	—	42·8	13
Platers	50	—	42·5	18·7
Caulkers	39 ²	—	43	14
Sheet Iron Workers ..	51	10 ²	45·7	10·8
Shipwrights	49·5	—	46	18

In view of these figures the statement of one of the leading ship-builders³ can be readily understood, that if the men in his employ would work anything like a full week in ordinary hours, he could dispense with most of the overtime and spare men in some trades to go elsewhere. But the system was too deeply seated in the habits and earnings of the men to get rid of easily, and the irregular time-keeping consequent upon it naturally infected other classes of labour.

These being the chief causes of lost time, it is clear that no great change could reasonably be expected from prosecutions before Munitions Tribunals. No statistics are available to show how much improvement was effected by this means, and very different opinions were expressed by employers. Some maintained that prosecution only caused irritation, especially when the tribunal imposed small fines to be deducted weekly in fractions from the high wages that were being earned. Most success was attained when the Ministry undertook the prosecution in cases which had been carefully investigated beforehand.⁴ This practice was adopted systematically in the Clyde district. Notorious bad time-keepers were reported by the employers to the Labour Officer, Mr. Paterson, who first summoned the offenders in person to the Area Office and warned them, and then prosecuted them if no substantial improvement was shown and maintained. In these cases heavy penalties were as a rule imposed. The following testimony⁵ from Mr. Biggart, Secretary of the North-Western

¹ Memorandum by Dr. Macnamara, 16 Aug., 1915. M.W. 29515/4.

² The caulkers were held up because the work was not ready for them to proceed, while there was temporary pressure on the sheet iron workers. The figures illustrate the proper function of overtime in readjusting the balance of a complex process.

³ Mr. Carter, of Cammell Laird's, at the prosecution of 100 men for bad time-keeping on 22 Oct., 1915. C.E. 292/5.

⁴ In November, 1915, Mr. Beveridge proposed to extend this practice and to withdraw from employers entirely the administration of the compulsory powers under the Munitions of War Act. A Labour Officer should be appointed for each factory or group of factories, who alone should have power with the help of a Workmen's Committee to authorise prosecutions under the Act and to grant or refuse leaving certificates. This proposal was not however proceeded with.

⁵ Report to the Ministry by the General Secretary, 2 December, 1915. HIST. REC./R/300/23.

Employers' Association, is the more valuable, inasmuch as his Association was by no means uncritical of the Ministry's action :—

“ With the exception of the ‘ incorrigibles,’ upon whom prosecution seems to have had little remedial effect, it would appear, on the whole, the recent prosecutions have had a very steadying effect not only with respect to the men actually in fault but with respect to the shops generally. A very gratifying feature of these prosecutions is that, when they are undertaken at the instance of the Ministry, the men complained against seem to appreciate much more seriously the gravity of their fault. It is unfortunate that in some cases a heavier fine has not been inflicted by the Courts since, with men making such good wages, a small fine is as a rule easily paid. At the same time, firms report numerous instances where the men have been thoroughly ashamed of their action, and have greatly improved their conduct. The system recently adopted by your Office of having the men warned by responsible officials is likewise having a very good effect. Besides giving the workmen, generally, confidence that they are being fairly and prudently dealt with, these warnings have the advantage that they can be carried through expeditiously and without any undue lapse of time after the offence which may be complained about has taken place.”

XI. Conclusion.

In a chronicle of the relations between the Ministry of Munitions and Labour it is inevitable that administrative difficulties, disappointed expectations, mistakes, strikes, grievances and failings should occupy a large space and dominate the argument. The uneventful, steady work alike of the Department and of employers and workpeople afford little material for the imagination, and can only be recorded in statistical tables of output, from which individuality, human nature, and life itself have been eliminated. But a false impression of the achievement of the Country can only be avoided by bearing constantly in mind the fact that the troubles and failures set forth in this narrative were only eddies in the great stream of national effort. It is the fashion in some circles to deride voluntary action and exalt coercion. But such coercive measures as the Government adopted were only rendered practicable by the free will and forbearance of the great majority of the people. The voluntary spirit was not superseded. It was at most disguised from the public view. It is indeed remarkable that the vast revolution from peaceful pursuits, infinite in variety, to a State regimented for the single purpose of war should have been accomplished without serious revolt. Legally the workmen's right to take concerted action in defence of their liberties or in pursuit of their interests was suspended. They were no longer even free to leave their employment. Conversely the employer received wide and novel powers from the State to restrict liberty and enforce discipline. The only safeguard provided against the misuse

of these powers was an appeal to a Court of Arbitration or to a Munitions Tribunal against oppressive action after the injury had been done. The remedy applied only to the particular case and afforded no certain protection against a repetition of the injury even by the same person. Bad employers and autocratic foremen were thus given scope for exploiting the patience of the ignorant and the docile. The War, no doubt, made the restriction of the workmen's freedom inevitable, and the disabilities imposed upon them were trivial in comparison with the hardships of their fellows in the trenches. Nevertheless, a system of industrial rights and obligations so ill-balanced could not work long without producing grievances which demanded early amendment. But the fact that no devastating explosion occurred is the most convincing proof that the unregulated powers conferred on the employer by the State over Labour were exercised with moderation and equity by the great majority of the employers and tolerated with forbearance and patriotic self-control by the mass of the workpeople.

Nor should it be forgotten that the work of the Labour Department was an achievement not unworthy of the country. At a critical moment of the War it embarked on a wide, uncharted sea. History offered no guidance as to the currents of feeling which the restraints required by a war of attrition might set in motion among the workmen. Their leaders were not apt to forecast and express the real mind of labour under conditions without parallel or precedent. The more vocal organs of public opinion had little knowledge of the Trade Unions or sympathy with their traditions and aims. The Act of Parliament, which governed the activities of the Department, was drafted before it had time to survey the vast field for which it was responsible, and in the midst of the exacting task of building up its own organization. Thus omissions, accidental and apparently trifling, prevented it from securing by administrative action that the Act should be carried out in the spirit as well as the letter. These omissions were made good so far as possible by advice and recommendations. But, as has been shown, the Department was hampered by the limitation of its powers, and had to bear the onus of defects, which only Parliament could cure.

CHAPTER II.

The Clyde Strikes, 1915, and the Balfour-Macassey Commission.

I. The Engineers' Strike, February, 1915.

The changes wrought by the Munitions of War Act in the status of the workman and the failure to provide that they should inure solely and obviously to the benefit of the State soon aggravated on the Clyde a spirit of unrest which all but evoked a general strike in the shipyards and engineering shops. The trouble there did not indeed originate in the Act. The relations between Labour and Capital had been strained before the War, and although the tension was relaxed during the Industrial Truce consequent upon the unanimity of the Nation when it took up arms, the antagonism awoke again at the beginning of 1915 and issued in the Engineers' Strike in February, which not only embittered the workmen against the employers, and the country against the workmen, but caused a disruption within the ranks of the Trade Unions, the consequences of which it is not yet possible to measure. For the next fourteen months the Clyde remained the storm centre of the United Kingdom. The causes of the trouble and the methods by which it was allayed deserve special study, since not only are they typical of much that happened elsewhere, but they stand out sharply defined by the strength and persistence of the personalities in conflict.

In the autumn of 1914 no part of the country was more eager than the Clyde Valley to join the Colours, to accelerate the output of armaments, or to participate in the manifold activities called out by the War. Men and money were offered freely. Disputes were set aside. Unprecedented hours were worked. Nor should it be forgotten that during the stormy period which followed, the determination to prosecute the War to the end was never relaxed. In their eagerness to defend the privileges of their societies and the liberties of their comrades, men may for the moment have impaired the fighting power of the Nation; but the cause was narrowness of vision, not deliberate disloyalty.

The strike in February, 1915, originated in a demand on 7 December, 1914, for an advance of 2d. an hour in the district rate of 8½d. for all engineers employed by the members of the North Western Engineering Trades Employers' Association. From the beginning of 1912 the Amalgamated Society of Engineers had been bound by a wages agreement which was now running out. Before the War the men were growing restive, because trade had been very

active and was believed to have yielded large profits, but the engineers were precluded from demanding an advance in wages, although other trades closely allied had not been similarly bound, and their rates were appreciably higher. Not only the ironworkers in the shipyards, but the shipwrights, plumbers, joiners, electricians, and moulders were more highly rated than the engineers. Consequently in July, 1914, the District Committee of the Amalgamated Society of Engineers decided to demand an advance of 2d. an hour on the termination of their three years' agreement. Their intention was only strengthened by the advance in prices of food which followed the declaration of war, and by the pressure of war orders, which removed all signs of the depression in trade anticipated when war broke out. Accordingly on 7 December formal notice of their claim was given to the Employers' Association.

The employers did not reply for three weeks,¹ and then they merely suggested that since the demand was abnormal the men should reconsider it. The Glasgow men proposed to retort with an ultimatum ; but in accordance with the provisions for avoiding disputes under the York Agreement the Greenock District Committee claimed a local conference with the Employers' Association, which was held on 19 January. The employers offered an advance of $\frac{1}{2}$ d. an hour, which was submitted to the men's delegates and rejected. The men proposed an increase of $1\frac{1}{2}$ d., in two stages of $\frac{3}{4}$ d., which was in turn refused by the employers. After a protracted sitting each side agreed to put the proposals of the other before their constituents and meet again in two days. But the second meeting terminated in a few minutes, the employers stating that their Association believed they had acted generously in offering $\frac{1}{2}$ d. an hour and would go no further. The matter was accordingly referred to a Central Conference, which took place at York on 12 February.

At York representatives of the Engineering Employers' Federation met those of the Amalgamated Society of Engineers, the Steam Engine Makers' Society, the United Machine Workers' Association and the Amalgamated Society of Toolmakers. After discussion, it was agreed by all the parties to recommend that the employers should grant and the workmen should accept an advance of $\frac{3}{4}$ d. an hour or 3s. a week on time rates and $7\frac{1}{2}$ per cent. on piece rates, the enhanced rates of wages to remain undisturbed for the duration of the War. But before the ballot on this recommendation could be taken the storm burst.

Feelings of indignation and impatience had been rising rapidly among the workmen owing to the cost of living and the belief that other classes were making profit out of their hardships. Flour had advanced since the outbreak of war from 10d. or 1s. the half stone to 1s. 3d. or 1s. 5d., oatmeal from 1s. to 1s. 4d. ; sugar from 2d. to $3\frac{1}{2}$ d. a pound ; tea from 1s. 2d. to 1s. 8d. ; butter, cheese and meat had risen

¹ This delay rendered it impossible to refer the question to the Central Conference at York on 8 January.

2d. a pound ; fish had doubled ; a sack of coal cost 6d. more.¹ Factors of house property in the industrial districts had already given notice that they intended to raise rents. These were stubborn facts within the daily experience of the workmen. Moreover, it was common knowledge that freights had gone up with a bound, in spite of all that the Government had done to assist shipowners. Mr. Bonar Law had himself confessed² in the House of Commons that "ships to-day are making simply enormous profits, and those profits come from the very cause for which the people of this country are making sacrifices in every direction and even giving their lives." The *Forward* and other Socialist papers were not slow to draw attention to the rumours of fortunes made out of food and war material by traders and manufacturers, rumours presently confirmed by the publication of company reports and balance sheets. Finally when the Government's attention was drawn to these anomalies, no action was promised. The workmen were comforted by the reflection that although the cost of living had risen, it was higher forty years ago, and was not as high now as might reasonably have been expected from the operation of natural causes. Ministers pointed to the Law of Supply and Demand as an all controlling and inexorable force, hardly foreseeing what a fatal weapon they were putting into the hands of the Engineers.

On 16 February 2,000 engineers and machinists at Messrs. G. & J. Weir's ceased work. The immediate cause was the discovery that the firm was paying a bonus of 6s. a week to certain American workmen, but the real reason was dissatisfaction at the terms proposed by the central conference at York, and impatience at the delay already suffered and now prolonged by the ballot which would not be completed until 9 March. The strike spread rapidly. In a few days 20 firms were affected and nearly 8,000 men had thrown down their tools. The Admiralty asked the Council of the A.S.E. to do what they could to secure an immediate resumption of work. It was decided to take the ballot at once, since the Society could not approach the employers until the verdict on their proposals was known. But the ballot showed an overwhelming majority—8,927 votes to 829—against the terms proposed. On 23 February the Council instructed the branch secretaries not to pay any benefits to members who had stopped work, since the strike had neither been approved by the District Committee nor sanctioned by the Executive Council. On 26 February Sir G. R. Askwith wrote, on the instructions of the Government, to the Employers' Federation and the Trade Unions concerned calling for a resumption of work on 1 March, and promising as soon as work was resumed to arrange for referring the matters in dispute to a Court of Arbitration.

The Council of the A.S.E. regarded this letter as an imperative call from the Government to take prompt measures to stop the strike. They therefore went the same day with their Chairman and Secretary

¹ *Times*, 4 March, 1915. Cf. *Parliamentary Debates* (1915), H. of C. LXIX. Debates on 11 and 17 February.

² *Parliamentary Debates* (1915), H. of C., LXIX., 793.

to Glasgow, and met in conference the joint District Committees of the North Western Area. The Committees resolved unanimously to support their Council, and on 1 March mass meetings were held in the several districts, at which the official leaders explained the position fully to the men, and urged them to return to work. But the ascendancy of those who had engineered the strike was not easily shaken. At Renfrew and Johnstone the majority were favourable to a resumption of work. But in Glasgow the numbers for and against were nearly equal. At Parkhead and Govan no resolutions were put. At Partick resolutions for and against were both defeated.

The leaders of the strike were the shop stewards. These men formed an integral part of the Trade Union organisation in the large establishments on the Clyde.¹ Chosen by the skilled workmen in each shop as their representatives, they took up the men's grievances, negotiated on their behalf with the foremen or the management, and if necessary handed the matter over to the officials of the Trade Union for further action. Since they worked alongside of the rank and file in the same shop, they were conversant with the personal and technical factors on which differences about conditions of labour, piece work prices, or the conduct of foremen mainly turned. Even managers who looked with little favour on the officials of the Trade Union were as a rule glad to have in their works responsible and influential workmen with whom they could deal; and they found them useful not merely as channels for the communication of grievances, but as leaders through whom negotiations could be conducted and discipline within certain limits maintained. In the larger establishments the shop stewards formed a committee and appointed one of their members as convener. In this way they strengthened their own position although they were not formally recognised as a body by the management.

The most remarkable of these men was David Kirkwood. He returned to Parkhead Forge as a toolfitter in 1913, after having been refused employment there for many years owing to the part which he took in the Engineers' Strike of 1897. When he came back he found some departments without stewards. He soon remedied this. A few months later he demanded that only trade unionists should be employed at Parkhead. The firm refused to treat with the district delegate of the A.S.E., but received a deputation of their own engineers. Mr. Kirkwood was the chief spokesman; and his strength of character and organising ability gained a complete victory. The foremen were instructed not to engage any men who were not trade unionists.

¹ Provision is made in the Rules of the A.S.E. for the appointment by District Committees of shop stewards "in workshops or departments thereof in their respective districts, such stewards to be under the direction and control of the Committee, by whom their duties shall be defined. The stewards shall report at least once each quarter on all matters affecting the trade, and keep the Committee posted with all events occurring in the various shops, and they shall be paid 3s. for each quarterly report . . . and should a shop steward be discharged through executing his duties he shall be entitled to full wage benefit." Rule 13, Section 5.

He then applied for the extension to the skilled men in all departments of an advance in wages of $\frac{1}{2}$ d. an hour above the district rate, and ultimately obtained it. Next he took up the cause of the semi-skilled men and improved their position. Finally he persuaded the firm to pay the men in their several departments instead of at one centre, thereby removing a constant source of inconvenience and irritation.¹

Men of this stamp, working in the shops and securing tangible results without delay, naturally acquired an ascendancy over their fellow-workers which the officials of the Trade Union could hardly rival. And there was a latent antagonism between them, which sprung from principles rooted in the organisation and objects of the Trade Unions, though it was no doubt sharpened by the personal ambitions inseparable from the government of large bodies of men. On the one hand was the ponderous machinery of the Trade Union, with a membership dispersed in various industries throughout the country and officials whose time was largely occupied in financial and administrative detail, organised in local branches with district committees and a central executive council, and operating by resolutions, delegations, conferences and ballots. On the other hand were large bodies of workmen following the same trade in the great engineering and shipbuilding establishments, in daily contact with one another and with their chosen spokesmen, who could summon them at any moment to a shop meeting in the dinner hour. Under these circumstances it was natural that the men should seek a remedy for their grievances by direct action exceeding the limits prescribed by the rules of the Trade Union rather than wait for months perhaps while the cumbrous procedure of the Union was brought into play. No doubt in normal times direct action would soon have proved itself ineffective. For the central control over strikes by the executive council had been rendered imperative by the federation of the employers armed with the weapon of a general lock-out. But during the war this weapon could not be used. And owing to the national emergency and the "time and line" basis of many war contracts individual employers were ready to make concessions, to which they could never have consented before the War. Thus the power of the shop stewards was augmented both by the impatience of the men at the dilatoriness of the authorised procedure, and by the relative weakness of the great firms engaged on the production of armaments.

After the indecisive results of the mass meetings on 1 March had shown how seriously the authority of the officials of the A.S.E. had been shaken, the strike committee, influenced no doubt by the strength of public opinion against them, recommended the men to return but to refuse to work overtime unless their demands were conceded. Many went back on 3 March and the rest on the following day. On 6 March the Council of the A.S.E. again met the Employers' Federation, but being unable to agree both parties appeared before the Committee on Production on 8 March. Before any evidence was taken Sir G. Askwith asked for an assurance that the decision of the Court would

¹ *Forward*, 21 August, 1915.

be accepted as final and binding on all parties. This, however, the Council of the A.S.E. were unable to give since they had promised that their members should be consulted before any amended offer was finally accepted. Another ballot therefore was taken, and on 17 March it was announced that the men had decided by 5,616 votes to 1,522 to abide by the Court's decision. The parties were heard on 22 March, and the next day the Committee on Production awarded an advance of 1d. an hour or 4s. a week on time rates and 10 per cent. on piece rates, the advances to be regarded as war wages and recognised as due to and dependent on the existence of the abnormal conditions then prevailing in consequence of the War. Similar advances were made about the same time to all the other skilled men in the shipbuilding and engineering trades on the Clyde. And the employers increased the wages of their semi-skilled and unskilled workmen by $\frac{3}{4}$ d. an hour, or 3s. a week on time rates and $7\frac{1}{2}$. per cent. on piece rates.

II. Agreements for the Removal of Restrictions on Production.

Meanwhile on 5 March the Engineers' Societies had agreed with the Engineering Employers' Federation to recommend the removal of restrictions on the production of shells and fuzes during the War.¹ For the making of tools and gauges and for setting up machines qualified men might be drawn from other branches of engineering, and semi-skilled or female labour might be introduced to perform operations within their capacity. In return the employers should undertake to find employment for the skilled men displaced, to maintain rates and piece prices, to restore the suspended conditions after the War, to afford as far as possible re-employment to their men serving with the Forces, to discharge the labour introduced under the agreement first, to reduce overtime wherever practicable and in any event to distribute it as widely as possible. The members of the A.S.E. approved these recommendations on 8 April by 14,137 votes to 9,817.

On 17 to 19 March the Treasury Conference took place between the Government and all the Trade Unions concerned in the production of war material.² The principles embodied in the Shells and Fuzes Agreement were expanded to cover all munitions and equipments of war, subject to the Government's requiring all their contractors and sub-contractors to pledge themselves to the Trade Unions' safeguards. In addition it was provided that no stoppage should occur on war work; if differences could not be settled by the recognised procedure, they should be referred to arbitration. To facilitate the execution of these arrangements an Advisory Committee representative of the Trade Unions should be appointed by the Government.

These recommendations were adopted by the representatives of all the Unions except the Amalgamated Society of Engineers, who

¹ See Vol. I., Part II., Chapter II., Section VII.

² See Vol. I., Part II., Chapter IV.

were not satisfied that the concessions of the Unions would not be turned to the private advantage of the employers and the permanent disadvantage of the workmen. Mr. Lloyd George accordingly invited the Council of the A.S.E. with their district delegates to meet him for further discussion. The conference took place on 25 March.¹ The Government then declared their intention of limiting the profits of all important firms engaged wholly or mainly upon shipbuilding and engineering work for war purposes, in order that the benefit resulting from the relaxation of trade restrictions or practices should accrue to the State; the relaxation contemplated in the Treasury Agreement related only to work done for war purposes during the war period; the Government undertook to use its influence to secure the restoration of previous conditions in every case after the War. In consequence of these pledges the representatives of the A.S.E. agreed to recommend the Treasury Agreement to their members, who approved of it on 16 June by 18,078 votes to 4,025.

III. Accusations of Drinking and Idleness against Clyde Workmen.

In the Spring of 1915 the public was led to believe that the chief reason for delay in the production of munitions was drink. On 29 March Mr. Lloyd George received a deputation from the Shipbuilding Employers' Federation,² who were unanimous in urging that the sale of excisable liquors should be totally prohibited during the period of the War. "In spite of working day and night seven days a week, less productiveness was being secured from the men" than before the War. "The deputation was of opinion that this was principally due to drink." Certain evidence in favour of these statements was furnished in a White Paper, printed by Order of the House of Commons on 1 May, which contained statistics of time lost in the shipyards and engineering shops of the Clyde and the Tyne, and reports by officers of the Admiralty and Home Office. The Captain Superintendent of the Clyde district wrote³:—"From close observation—and my opinion is shared by all the managers of shipyards—the amount drunk by a section of the men is much greater than it was before the War, and it is on the increase. Those principally concerned are the ironworkers and shipwrights.... The sole reason for this heavy drinking is that the men earn more money than they know what to do with.... I cannot state too forcibly my own opinion that the total prohibition of the sale of spirits would be the most effective act that could at the present time be taken to win this war. Any measure less drastic will not be a cure; it will keep alive the craving which has been growing after six months' indulgence." With one or two exceptions⁴ the tenor

¹ See Vol. I., Part II., Chap. IV., Section II.

² *Report and Statistics of Bad Time kept in Shipbuilding, Munitions, and Transport Areas.* (1 May, 1915), p. 11.

³ *Ibid.*, p. 9.

⁴ *Ibid.*, pp. 24-26. One of the Factory Inspectors, Mr. H. J. Wilson, gave a fair and discriminating account of the conditions on the Clyde.

of the other reports was the same. Statistics compiled from 15 firms in the Clyde district showed that of the ironworkers 27·6 per cent. worked more than 53 hours a week, 39·4 per cent. between 40 and 53 hours, 33 per cent. less than 40 hours.¹

These opinions and figures made a deep impression on the Country, presented as they were by Mr. Lloyd George in his speech on 29 April,² when he introduced his Bill for the control of the Liquor Traffic and at the same time made his proposals for imposing crushing taxes upon beer, spirits and wine. The middle-class press was not slow to emphasise the indictment against the workmen of the North. This caused a feeling of bitter resentment, and contributed in no small degree to produce the suspicious and irritable temper which distorted the judgment and stained the good name of the men on the Clyde in the months that followed. For the indictment was not proven. The figures indeed showed a very serious loss of time. But no attempt was made to determine how far that loss was due to unavoidable causes. The weather had been unusually severe during the weeks to which the statistics referred. Bad weather impeded work on the hulls of ships, and the exposure greatly increased absence through sickness. Work day and night and seven days a week wrought its inevitable nemesis. Moreover, many of the strongest men had joined the Colours; and their places were taken by men who had retired or men on the fringe of the trade who in normal times were rarely in good employment. No allowance was made for men who were sent home because slips or staging or material were not ready for them.³ And as Mr. Bonar Law pertinently asked⁴ :—"How can anyone know that the heroes of one week are not the slackers of another week? How can he know without evidence that the same men who wrought 85 hours one week are not taking it easier the following week?"

Drink, no doubt, was a source of grave evil among a large number of the Clyde workmen, as it had been for many years. But the remedy was not simple and obvious. One cause was the lack of facilities for obtaining wholesome food or drink in or near the works. In none of the yards on the Clyde at this time, except one at Govan, was there any accommodation for taking meals.⁵ The numerous public-houses at their gates were drinking bars without even a seat on which a man could rest after a long spell of exacting toil. But the root of the trouble was the housing of the people. Nearly half the population in Glasgow in 1911 lived in houses of two rooms. More than one-eighth lived in single rooms. And the housing conditions of the neighbouring towns were no better. Only sordid experience or a strong effort of imagination can realise the significance of these appalling figures.

¹ *Report and Statistics of Bad Time kept in Shipbuilding, Munitions, and Transport Areas* (1 May, 1915), p. 13.

² *Parliamentary Debates* (1915), *H. of C.*, LXXI., 864-896.

³ *Parliamentary Debates* (1915), *H. of C.*, LXXI., 1380, 1409.

⁴ *Ibid.*, 1423.

⁵ *Report and Statistics of Bad Time kept in Shipbuilding, Munitions and Transport Areas*, p. 20.

As the late Dr. Russell, Medical Officer for Glasgow, said 30 years ago¹ :

" Figures are beyond the reach of sentiment, and if they are sensational, it is only because of their terrible, undisguised truthfulness. You must not think of the inmates of those small houses as families in the ordinary sense of the term. No less than 14 per cent. of the one-roomed houses and 27 per cent. of the two-roomed contain lodgers—strange men and women mixed up with husbands and wives and children, within the four walls of small rooms. Nor must I permit you in noting down the same average of fully three inmates in each of these one-apartment houses to remain ignorant of the fact that there are thousands of these houses which contain five, six, and seven inmates, and hundreds which are inhabited by from eight up even to thirteen. Percentages, though an accurate, are but a feeble mode of expression for such facts regarding men and women like ourselves. I have told you that in 1881 the population of Glasgow was 511,520 persons, and that of those 25 per cent. lived in one room, and 45 per cent. in two-roomed houses. But what does that mean ? It means that 126,000 persons *live* in these one-roomed and 228,000 in these two-roomed houses. But is that all I can say ? I might throw down that statement before you, and ask you to imagine yourselves, with all your appetites and passions, your bodily necessities and functions, your feelings of modesty, your sense of propriety, your births, your sicknesses, your deaths, your children—in short, your *lives* in the whole round of their relationships with the seen and the unseen, suddenly shrivelled and shrunk into such conditions of space. I might ask you, I do ask you, to consider and honestly confess what would be the result to you. But I would fain do more. Generalities are so feeble. Yet how can I speak to you decently of details ? Where can I find language in which to clothe the facts of these poor people's lives and yet be tolerable ? "

Since Dr. Russell spoke these words, serious if inadequate efforts have been made to mollify this deep-seated disease. But still in 1911, out of a population of 759,614, 104,641 lived in one-room and 367,341 in two-roomed houses in Glasgow.² And the evil has been aggravated during the War by the influx of munition workers and the stoppage of building. If the Clyde workman has not always done all that he might have done to bring this War to a victorious issue, if he has followed the lure of drink, if he has shown a sullen and suspicious temper and embraced too readily revolutionary ideas and the gospel of class hatred, his Country, which has failed to provide for him the first condition of making a home for his family and himself, cannot with justice or a good conscience cast the first stone.

¹ *Public Health Administration in Glasgow*. Memorial Volume of the Writings of J. B. Russell, M.D. . Quoted in Report of Royal Commission on the Housing of the Industrial Population of Scotland. Cd. 8731, p. 100.

² *Report of the Royal Commission on the Housing of the Industrial Population of Scotland*. Cd. 8731, p. 104.

IV. The Glasgow and West of Scotland Armaments Committee.

On 30 April, 1915, at a public meeting of representative employers and workmen, an Armaments Committee¹ had been appointed for Glasgow and the West of Scotland to take all possible steps to increase the output of munitions. It is unnecessary here to do more than indicate what it was and what it attempted. The essence of the Committee's structure was the combination of representatives of the Employers' Associations and the Trade Unions with officers of the Government Departments. The official element not only mediated between opposing interests and gave stability and weight to the resolutions of the Committee, but also endowed it with quasi-executive powers. For the Government could hardly ignore proposals which were pressed by their own officers, as well as local opinion; and the official representatives were able to ensure that schemes were put in proper form and forwarded without delay to the right quarters. On the other hand, it was not easy for trade unions or employers to refuse to carry out what was recommended by independent authorities in conjunction with their own representatives.

The Clyde Committee did not effect so much as the North East Coast Armaments Committee, on which it was modelled. How far its relative failure was due to its size,² its personnel, the existing cleavage between Labour and Capital, or the indecisive and unsympathetic attitude of the Government to its claims, cannot now be determined. It did not live long enough to prove that the principle of its constitution was unsound, or that it could not have grown into a vigorous organ for the local administration of labour policy.

On 21 May a deputation laid the claims of the Committee before the Third Sea Lord and Sir P. Girouard, and later they saw Mr. Lloyd George. They claimed³ that in connection with trade disputes, questions of wages, restriction of production, demarcation and other matters affecting the output of munitions, the Government's representatives should have power to summon before the Committee employers, trade union officials, and other persons, and to issue binding instructions under the sanction of substantial penalties. To transfer workmen, they thought that compulsory powers would probably be necessary. But they were unable to obtain any decision concerning the powers of the Armaments Committee. A strong local joint committee of employers and workmen, acting through representatives of the Government, armed with executive powers, did not fit in with the policy then in the ascendant. Independent local action might upset negotiations in London with the Trade Union leaders, and cause confusion in the handling of disputes by the Board of Trade. Policy

¹ A full account of this Committee is given in Vol. I., Part III., Chap. III., Section III. and Appendix XV.

² The Committee consisted of 16 employers, 16 trade union officials, and 4 officers representing the Admiralty, War Office, Home Office, and Board of Trade, with the Lord Provost as President, and Captain Barttelot, R.N., as Chairman.

³ M.C. 469.

must be centralised before administration could be decentralised. Nor were joint committees of employers and workmen looked on with favour. Partisanship was too apt to divide them and to magnify rather than diminish differences.¹ It seemed safer to exclude the workmen from all questions affecting contracts, and the employers from all questions affecting labour.

In the meantime, the Committee had adopted vigorous proposals for dealing with bad time-keeping. Measures also were taken to move men from merchant to Government work. Firms engaged on commercial work were asked to transfer quotas of their men to the principal naval yards. But this effort produced small results, in part at least because no decision could be obtained from the Government concerning compensation or indemnity for broken contracts. On 2 June, therefore, the Committee authorised the formation of a War Squad on the North East Coast Model. By the end of the month, when the scheme was superseded, 9,755 men had enrolled, of whom 1,320 had been submitted to employers, 454 accepted, and 164 transferred. The Committee also intervened in several disputes, negotiated for the suspension of demarcation between shipwrights and ship joiners, iron and brass moulders, coppersmiths and plumbers, examined the relative merits of setting up a National Shell Factory or adopting a co-operative scheme, took steps to make information about lodgings more accessible, and dealt with numerous other matters affecting the output of munitions. But the Committee was continually hampered by the uncertainty of its position, and never had a real opportunity of executing any of its schemes.

On 30 July Mr. Lloyd George wrote² to the Lord Provost, proposing to bring the Clyde into line with other districts and recommending that a Board of Management and a Labour Advisory Board should be appointed. "When these steps have been taken it will no longer be necessary to continue the activities of the present West of Scotland Armaments Committee, otherwise than as a consultative committee, in view of the procedure and organisation contemplated by the new Act, but I trust that any representative of the Ministry of Munitions who may be appointed to your district, as well as the Management and Labour Boards indicated above, will continue to have the valuable support and co-operation of yourself and your colleagues." The Committee preferred dissolution to a shadowy existence in a consultative capacity.³

It is difficult to resist the criticism that the Ministry in failing to make use of the Armaments Committee missed an opportunity of developing a local organ for the administration of its labour policy. The idea of a joint committee, representing the Government, the Employers' Associations, and the Trade Unions, and deriving its powers from the authority vested in the official element, was welcomed alike by the employers and by the workmen, and afforded a means of main-

¹ HIST. REC./R/1121·32/6.

² M.W. 26979.

³ No Local Labour Advisory Board was formed until April, 1916.

taining harmony between a vigorous local administration and the Central Government. In their individual experience and standing, and in the importance of the establishments they controlled, no stronger body of employers could have been chosen than those who joined this Committee. The Trade Unions whose members were concerned in the production of munitions, were represented by their local officials. Provided that the representatives of the Government were men of sufficient weight, experience and tact, an essential condition of success, all the elements were present which were required to handle the difficult situation arising out of the curtailment of the workmen's liberty by the Munitions of War Act, and the invasion of his trade rules and customs by the reorganisation of the workshops and the dilution of labour. But just at the moment when these novel conditions called for free interchange of opinion between employers and workmen, rapid exploration of grievances, full explanation of the difficulties to be faced on either side, mutual goodwill and readiness to readjust habits and prejudices, the round table was broken up.

V. Attitude of the Workmen to the Munitions of War Act.

The Munitions of War Bill became law on 2 July, 1915. The features of the Bill, which soon gained for it the name of "the Slavery Act" on the Clyde, had received little attention in the House of Commons, and men were slow to realise how profound a revolution in the relations between employer and workman was created by the prohibition of strikes and the provisions concerning leaving certificates. Even the words of the Act, much less their implications, were rarely studied by the persons directly affected. "In presiding at Munitions Tribunals," Sheriff Fyfe wrote¹ in November, "nothing has impressed me more than the ignorance of the provisions of the Act manifested by intelligent men, both employers and workmen. I have taken every opportunity of making it known that this is an Act to which the maxim is peculiarly applicable that every citizen is presumed to know the law." Thus men were often surprised by finding themselves in collision with the Act; and this did not improve their temper or induce their acquiescence. They felt in some obscure way that they had been wronged. This grievance was aggravated in the Clyde district, because the Act came into practical operation at the time of the Glasgow Fair holidays, and caused no small inconvenience and some real hardship.²

Moreover, a large body of the workmen had little faith in the pledge³ that "no change in practice made during the war shall be allowed to prejudice the position of the workmen or of their trade unions in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war." The reason for this was twofold. On the one hand the skilled workmen saw that the

¹ M.W. M.T. 107/5.

² *Clyde Munition Workers*. Cd. 8136, paragraph 15. Appendix IV

³ Munitions of War Act, Schedule II. (2).

policy of dilution meant not merely the admission of unskilled men and women into the workshops, but a reorganisation of the factory and new methods of production, entailing the subdivision of complex and varied processes into their simple elements, specialisation and repetitive work. This threatened the livelihood of their class. The automatic operator would take the place of the skilled man with his versatility acquired by a long apprenticeship and experience. No doubt highly skilled mechanics would still be necessary to supervise ; but there would be no room for the rank and file, whose standard of life must fall to that of unskilled operators, at the mercy of every change of trade or fashion, and subject to unlimited competition. If these new methods were once generally introduced, the Government's pledge was no more capable of restoring the old order than it could have enforced a return from the power to the hand loom a century earlier. On the other hand, those who looked forward to the exploitation of cheap labour were not silent, and their words received a wider circulation than they intended. For example, the following passage from an article in the *Scottish Law Courts Record* was twice reproduced in the *Forward*.¹

" This is work that could and should be done by women and boys and girls, who could readily be taught, and would quickly learn, and whose pay would be less than that of men. In this matter, however, we have set up a legislative barbed wire fencing under the Factory and similar Acts, which in many ways hampers the freedom of the manufacturer, and of those who are willing to work for him at low wages and for long hours. The War itself, as a great economic force, is helping us to solve this question ; the shortage of men now and still more after the peace is giving their chance to working women and even to boys and girls. In regard to our workers, whatever the unions may do, and notwithstanding any paper guarantee given, employment can and will never be the same again. The inevitable operation of the law of supply and demand must bring more women and girls into the ranks of our workers. It is only by means of this freedom to hire cheaper labour that our manufacturers can hope either to capture or to keep some of the German markets in low-priced goods of large and widespread sale."

Passages in a similar strain advocating the suspension of Trade Unions, except in so far as they performed the functions of Friendly Societies,² and the extension of military law and courts martial to the workshops,³ were quoted week after week in the papers read by the more thoughtful workmen, and strengthened any forebodings they might cherish.

¹ *Forward*, 24 April, 1915 ; 1 January, 1916.

² *Forward*, 29 May, 1915.

³ " We must deal as harshly with strikers who throw down their tools as with soldiers who desert in the field." Quoted by *Forward*, 5 June, 1915, from the *Times*, 31 May, 1915.

In confirmation of this diagnosis, it may be remarked that no serious opposition was encountered in the Clyde district to the employment of unskilled or female labour on ammunition in accordance with the Shells and Fuzes Agreement. Before the War shells had not been made on the Clyde, and their manufacture was regarded merely as an episode without permanent effect on local conditions of labour.

VI. The Coppersmiths' Strike at Fairfield.

The first strike took place on 27 July at Fairfield. The firm was short of coppersmiths, and had asked the Armaments Committee to arrange that plumbers might be allowed to do certain work usually performed by coppersmiths. On 14 July the Committee replied that this might be done provided that the Coppersmiths' secretary was notified of the arrangements made. The firm acted accordingly, but the men's secretary hesitated to consent; whereupon the firm informed him that Fairfield was "controlled," and had every intention of taking advantage of the Munitions Act. After the Fair Holidays the change was carried out. But at 7.20 in the morning of 27 July the works manager received a deputation of three coppersmiths, who told him that though they did not object to plumbers doing their work on board ship, if the plumbers were brought into the copper shop the coppersmiths would go out. A meeting of the men was then held, and after breakfast none of them returned to work.

On 2 August 28 of the strikers were brought before a General Munitions Tribunal. After the facts had been stated, Mr. Turnbull, the men's secretary, urged that the firm had violated the Act, because they had made the change without giving the men opportunity for consultation.¹ The chairman pointed out that the Act provided that before men went on strike the matter in dispute must be referred to the Board of Trade. If the men promised to return to work while the Board of Trade was considering the matter, they would still be liable to penalties for striking, but the amount of the penalty might be modified. After an adjournment, Mr. Turnbull read out a resolution, in which he undertook to advise the men to go back, if the Court insisted on the maintenance of the *status quo ante*, pending negotiations for a settlement. The firm agreed to this, and the chairman then imposed a fine of 2s. 6d. on each of the strikers. The fines were paid by the Union, which, in their secretary's words, "regarded the action of their members as quite legal." The matter in dispute was decided against the men on 14 August by Sheriff Mackenzie, acting as arbitrator.

The motive of this strike is obscure. The firm complied in substance with the Act by giving notice of the change to Mr. Turnbull; the arbitrator's decision shows that their proposal was not in itself unreasonable; the action of the Armaments Committee proves that the men's Union were prepared to consider favourably the

¹ Munitions of War Act, Schedule II., paragraph 7.

suspension of rules of demarcation between plumbers and copper-smiths. Yet the strike cannot be regarded simply as an act of unreason. The cause is probably to be found in the men's resentment at the firm's declaration of their intention to enforce the change by means of the Munitions Act, and the manner in which the declaration was made. Moreover, the men believed that Fairfield had more labour than they could usefully employ, and yet were asking for still more, and for relaxations of trade customs which could only be justified by a real shortage of labour.¹ There was no doubt much slackness in the yard; but how far this was due to faults of management, how far to want of material and other causes beyond the firm's control, cannot now be determined.

VII. The Shipwrights' Strike at Fairfield.

On 26 August, 1915, another strike occurred at Fairfield, which nearly involved a stoppage of work throughout the whole of the Clyde district. Since the circumstances of this strike were investigated at great length by Lord Balfour of Burleigh and Mr. Lynden Macassey, the evidence is voluminous, but on many points it is hard for the reader to judge exactly what happened, and on the most important of them the Commissioners, as will be seen later, differed from the emphatic statements of the firm.²

On the morning of Thursday, 26 August, shortly before half-past seven, an assistant manager went down a hatchway with the head liner-off to inspect some work in one of the shell rooms of H.M.S. *Valiant*. He found there fifteen men or more sitting on planks on the top of the shell bins smoking and reading papers. When they saw him, they all scattered except two shipwrights, Andrew White and Hugh Walker. Their work was in another part of the shell room, but at that moment one of them was (he said) getting his adze from his tool box in the shell bin, and the other was standing close by with a template in his hand for a mould he was making. The Manager asked them for their tickets, in order to identify them, and reported what he had found to Mr. Aitken, the head foreman of the shipwrights. Mr. Aitken sent for the liner-off, whose statement of what he had seen agreed with what the Manager had told him. He then sent for the two shipwrights and charged them with loitering. Not satisfied with such explanations as they offered, he told them

¹ The following irrelevant statement made by one of the strikers at the trial is significant of the attitude of the men. "I think this will finish it. I am as much a patriot as any man in this room. We have been looked upon as unpatriotic in this matter. I have seven relations both in the trenches and on the sea. No man dare tell me that I am sacrificing their lives by remaining out. I am standing out for the Trade Union cause, a perfectly legitimate proceeding. I am talking as a practical coppersmith. The whole fault of this lies with the Fairfield Management. I can prove this—that there is work going out of Fairfield to six or seven different shops, and men are standing idle in our shops. Supposing you got eighty coppersmiths to-night, there are only 10 fires . . ." At this point the witness was interrupted.

² M.W. 56068/2, see p. 60.

they must go, and asked them to come back at breakfast time to get their money. When they went back, they found two pass-out checks made out for them by Mr. Aitken, instructing the Pay Office to give them their books and lying time, and adding as the reason "not attending to work." Before going to breakfast they had informed Mr. MacDougall, their shop steward, of what had happened, and he advised them not to accept clearance lines unless they were good. They therefore refused to take the pass-out checks, and waited to see Mr. Aitken again. When they saw him and said they wanted "justice," he explained that the reason stated on the checks was given for the information of the management and would not be copied on their certificates. But they still refused to take the checks to the pay office, and informed Mr. MacDougall. Mr. MacDougall then went in to see Mr. Aitken, who sent for Mr. Swanson, the foreman, under whom both men had been working and one of them had served his apprenticeship seven years before. Mr. Swanson said they were good enough men and he was well suited with them. But Mr. Aitken refused to modify his action.

In the dinner hour at 1.45 a meeting of the shipwrights was summoned by their shop stewards in the carpenters' shop. After Walker had told his story, it was decided to send a deputation to the management to ask for the deletion of the objectionable words. Mr. MacDougall went along with Mr. Turner, another shop steward, and asked to see Mr. McMaster, the works manager; but since he could not be found, they put the men's request before Mr. Aitken. Mr. Aitken then rang up Mr. McMaster, and explained his trouble, suggesting that the words "not attending to work" should be deleted. After consulting Mr. MacMillan, the shipyard director, who happened to be in his room, the works manager agreed that the words might be deleted, but "under protest." This qualification spoilt the concession. A quarter of an hour later the shop stewards returned to the foreman's office and announced that the men were of opinion that the two shipwrights should be reinstated. Mr. McMaster, who was now with Mr. Aitken, said he could not do that. He would have been glad if the matter had been reported to him at the beginning, but it was too late to open the question, when the men said they would not return to work unless there was reinstatement. The offensive words would be deleted, and the shop stewards had better get the men back to work. If not, he would have to report them to the Minister of Munitions. About half-past four the men left the shipyard, and held a meeting in a hall outside. The following morning, another deputation, Mr. MacDougall and Mr. Turner, the shop stewards, with Mr. Fleming, waited upon Mr. MacMillan and suggested arbitration; but he told them that the firm had already made up their minds that the two shipwrights were guilty, and advised them strongly to go back to the men and get them to return to work.

These events seem trivial enough. But the occasions of industrial upheavals are often trivial, though the causes are deep and wide. Some years earlier there had been serious trouble in the

Clyde shipyards, because the federated employers had attempted to introduce a system of giving and requiring discharge notes, stating the reason of dismissal, in consequence of which a man might be forced to choose between abandoning his trade or migrating to another part of the country. This Fairfield strike undoubtedly originated in the belief that a similar system was being introduced under the provisions of the Munitions Act. The firm denied any such intention; and ultimately agreed to delete the reason for dismissal from the pass-out check, though only under protest. Irritated no doubt by this qualification, and uncertain what was behind it, realising, too, that the dismissed shipwrights had possibly not been idling after all, the men then demanded reinstatement, which the firm at that stage could not reasonably be expected to concede. But it must be remembered that these men on the Clyde are not cool and calculating, but impulsive and swayed by sentiment. They had gained a concession from the firm which would effectively prevent the dismissed shipwrights from suffering any real hardship; for with clean certificates these men would have no difficulty in obtaining employment immediately in the neighbouring yards. Possibly they were not guilty of loitering like the men who had scattered on the manager's approach, but the situation in which they were found was certainly compromising. The threat to strike, unless the men were reinstated, contrary as it was not only to the law but to the constitution of their Society, can only be explained as the result of a temper eager to provoke a conflict on the flimsiest pretext and inflamed with suspicion against every disciplinary action of the management as a tyrannical exercise of power under the cover of the Munitions Act.¹

The Ministry was informed of the strike on 27 August, and decided to prosecute the ringleaders before a General Munitions Tribunal.² Drastic action was necessary, though it might involve a general stoppage. But determined repression (it was thought) would go far to kill the unrest on the Clyde. The trial took place on 3 September. The prosecution asked that the maximum penalty of £25 should be imposed on each of the seventeen men accused. In giving judgment, Sheriff Fyfe said³ that the Court was not concerned whether the dismissal of the two men was reasonable or not. That was not relevant to the present complaint. Reasons for going on strike mattered nothing under the Munitions of War Act. Men might have a grievance or might not. The Tribunal had nothing to do with that. Like everybody else in the country the accused were subject to special war laws. They were in their workshop as much bound to obey orders as the soldier in the field. The Munitions

¹ Unless this diagnosis is correct, it is difficult to understand the attitude of Mr. C. McPherson, correspondent of the Branch Secretary of the Shipwrights' Association, who not only struck but went to prison rather than allow the fine to be paid on his behalf. At the trial he stated in evidence that he had worked as many as 120 hours in a week and 27 hours on a stretch, and was desirous that the greatest possible amount of munitions should be turned out.

² M.W. 39002.

³ *Glasgow Herald*, 4 September, 1915. M.W. 56068/21.

Act was their commanding officer, and its emphatic command to them was, "Thou shalt not strike." They had deliberately disobeyed this command, and they must take the consequences. He could not regard this as a trifling offence. To go out on strike at this time was more than a mere statutory contravention. It was a crime against their country and a crime against their comrades in the field, who were calling for munitions of war to fight their enemies and to preserve for them their liberties and privileges. He must in this case impose a penalty sufficiently substantial to deter others from committing the like offence, which was after all the main purpose of the prosecution. He was not sure that he ought not to impose the full penalty of £5 a day for the time the strike lasted. If after this warning the Court had again to consider a strike case, it was quite likely that a more serious view would be taken. He should, however, like to hope, for the honour of the Clyde district, that this was the last they would hear of strikes while the war lasted, and he proposed in the present case to modify the money penalty to £10. He would allow 21 days in which to pay, failing which the alternative was 30 days' imprisonment.

The severity of the penalty surprised the men, and for the moment seemed to produce the effect intended. A meeting of the strikers was held the same night. Mr. T. H. Hill, an official of the Shipwrights' Society, strongly advised the men to resume work at once, pointing out the seriousness of their position. Ultimately, it was resolved that work should be resumed the next day. Questioned whether the Society would pay the fines, Mr. Hill replied that he could not say, but would put it before the Executive Council in Newcastle.

The *Glasgow Herald's* comments on the situation are instructive.¹

"Yesterday's proceedings were intended to demonstrate that the Munitions of War Act is a weapon for powerful use, and that it will be used, given just cause, with ruthless energy. In some recent instances there has, doubtless, been an amount of tactlessness on the part of employers or their representatives, which has acted like salt in raw flesh. The Act was not passed in order that it might be flourished by foremen and others endowed with delegated power as if it were an Egyptian whip for the back of Israelite brickmakers . . . In so far as that may have been forgotten there must be an instant repentance, for the man who contributes to the exasperation of another, which leads to his striking, is under the same ban of guiltiness. We await the sequel to yesterday's trial with some anxiety. For the moment the men seem to be disposed to think that further defiance of the Act is useless, and it is most earnestly to be hoped that sanity and patriotism will join hands and make an end of a situation which menaces far more than Scotland's reputation. But should other counsels eventually gain the upper hand—well, the State is

¹ *Glasgow Herald*, 4 Sept., 1915. M.W. 56068/21.

still supreme. Cost what it may to prevent them, strikes in connection with the work which is demanded for the safety of the State cannot be permitted. The soldier in the trenches has placed himself under military discipline voluntarily. If the munition worker will not give his labour to the utmost of his capacity voluntarily, and if the compulsory methods of the Munitions Act are proved to be inadequate, then he must be placed under the same discipline as his brother who is waiting for the product of his labour."

Since the trouble was admittedly due, in part at least, to the abuse of arbitrary power, it would, perhaps, have been wiser and more consistent to suggest methods by which that power might be limited than to threaten its extension if further trouble occurred.

VIII. Sequel of the Fairfield Shipwrights' Strike.

The shipwrights at Fairfield had struck work without consulting the local officials of their Society or obtaining the consent of their Executive. On the morning of 27 August the management at Fairfield had attempted to get in touch with Mr. Hill or Mr. Westwood, his assistant, but Mr. Hill was away and Mr. Westwood was at a yard down the river, so that he could not reach Fairfield before the final decision to stay out was taken by the men. At the trial it was stated¹ that the Shipwrights' Association disapproved of the strike. They were by no means ready to pay the fines imposed on their members; and their disapproval was generally shared by the official representatives of the other Unions. But the movement started by the rank and file soon overcame the resistance of their leaders.

On 14 September Mr. Hopkins, Secretary of the Govan and District United Trades Council, wrote² to Mr. Lloyd George to say that his Council had been consulted by a number of the shipwrights fined for striking at Fairfield. If the Trade Union refused to pay the fines, as then seemed probable, the men would refuse to pay on principle and because they were unable to find the money.³ This would bring about a serious situation. "Those who have consulted this Council declare their intention of going to prison before they will submit to the wrong of a money penalty out of all proportion to the offence. We consider such a course will excite the strongest sympathy among all classes of Trade Unionists and workers, and its ultimate effect will be disastrous." Would Mr. Lloyd George obviate this by reducing the fines to a nominal sum or remitting them altogether?

So far were the Ministry from making any such concession that, following out the principle of the Munitions of War Act, they were already considering on the recommendation of their local representatives the possibility of preventing Trade Unions from paying any fines im-

¹ M.W. 43348

² M.W. 43348/2.

³ Shipwrights were normally paid by time, and at this period their district rate was 10½d. an hour.

posed by Munitions Tribunals.¹ Mr. Hopkins was therefore informed² on 23 September that the Minister had no power to intervene.

In the meantime the Govan Trades' Council had issued a circular³ inviting other bodies of workmen to pass resolutions protesting against the fines imposed on the shipwrights, and calling upon the Government to repeal the Munitions of War Act, "which is being used as a weapon of oppression and irritation against the workers and which in no wise is assisting in increasing output."⁴

On 23 September 14 of the shipwrights paid their fines, the money being advanced by their Society. But three refused—Thomas Turner, David Fleming, and Charles McPherson. After a letter of warning they were apprehended on 6 October in accordance with the instructions of the Ministry and lodged in prison.⁵

On 2 October Mr. Paterson, Labour Officer for Scotland, informed⁶ the Ministry that the situation on the Clyde was grave. Mr. Brownlie, Chairman of the A.S.E., had recently visited Glasgow to explain the Munitions Act to the members of his Society, and make its working smoother if possible, but his speech was almost at once interrupted, and the meeting became a bear garden. A resolution demanding action to secure the repeal of the Act was not carried only because the delegates left the platform and terminated the meeting. The main grievance was against Section 7 of the Act, which by the hold it gave the employers over the men had entirely altered the tone of the managers towards them and made them much more dictatorial. The men also alleged great mismanagement; many firms were much overstaffed, yet they used the Act to prevent the men going elsewhere.

On 11 October Mr. I. H. Mitchell, of the Board of Trade, was sent down to Glasgow to enquire into the position. He reported⁷ the next day that it was very difficult. Each day added to the danger of a stoppage. Beginning with the Govan Trades' Council, the movement had been taken up by the shop stewards and later by the official delegates of the Unions. He had seen several of the latter, who repudiated the action of the Govan Trades' Council, but urged that unless something was done immediately a stoppage was inevitable. The trouble had originated largely at Fairfield; but the men were full of other grievances. An opportunity to ventilate these would greatly allay the feeling which undoubtedly existed and appeared to grow. An untoward incident might precipitate a stoppage at any moment, such as the decision just given by the Sheriff authorising the eviction of a number of families because they were resisting the rise in rents.⁸ A meeting would be held at Fairfield to-morrow, which was expected to call for a strike. But the position might be saved, if he could receive a telegram stating that such a man as Lord Balfour of Burleigh or Mr. Macassey had been appointed to enquire into the men's grievances.

¹ M.W. 40953. ² M.W. 43348/2. ³ M.W. 43348/3. ⁴ M.W. 56068/6.

⁵ M.W. 56068/21. ⁶ M.W. 56068/21. ⁷ M.W. 56068. ⁸ See Appendix III.

On 13 October, early in the morning, Mr. Mitchell telegraphed¹ to Sir H. Llewellyn Smith that the position was critical ; it would help, if he could be authorised to state that forenoon that an enquiry would open on Friday the 15th. He was informed in reply that the Minister would arrange for an enquiry without delay. The same evening the Ministry received a telegram from Govan :—" Fairfield shipwrights demand release of three shipwrights from prison by Saturday first,² failing which we cease work."

On 14 October a circular³ was addressed to the Clydeside workers by the Clyde Shipyards Joint Trades Vigilance Committee, an official organisation. The harsh and unjust administration of the Munitions Act had given rise to an immense volume of righteous indignation. The Central Board of the Committee had therefore resolved unanimously to submit the whole matter at once to the Minister of Munitions, and in particular the imprisonment of the three shipwrights, and to insist on their immediate release on the ground that the penalty was most vindictive and calculated to breed unrest and thus defeat the object of the Act. It was also agreed to insist either on the repeal of the Act or on its drastic amendment. The Minister of Munitions had arranged to open an enquiry on Friday, at which the Committee was taking steps to present the case of the men. " You may therefore rest assured that everything will be done to establish our claims. Meantime it is essential if we are to succeed that we should have the whole-hearted co-operation of the men in our efforts, and this can best be secured by each and every workman absolutely refusing to take drastic action of any kind without first consulting the responsible officials of his Trade Union. Remember we are in the midst of a grave national crisis ; upon you, munition workers, rests the issue. Your comrades in the trenches expect you loyally to co-operate with them in their efforts to defend our hearths and homes, and we feel certain you will respond, and you may rely on us making a strenuous effort to secure the repeal of the Act or its radical amendment."

IX. The Enquiry by Lord Balfour of Burleigh and Mr. Macassey into the Fairfield Strike.

On 15 October Lord Balfour of Burleigh and Mr. Lynden Macassey opened the enquiry, having received by telegram the following terms of reference⁴ : " You are appointed by the Minister of Munitions to enquire into the causes and circumstances of the apprehended differences affecting munition workers in the Clyde District. In the course of enquiry it is probable that matters involving the working of some of the provisions of the Munitions Act will be brought up. While not excluding such general evidence as appears necessary to throw light on the causes of the present unrest, you will be careful to avoid acting in any way as a Court of Appeal from Munitions Tribunals or reviewing the correctness of their decisions."

¹ M.W. 56068. ² *I.e.* 16 October. ³ M.W. 56068. ⁴ M.W. 56068.

At the outset the Trade Union leaders pressed¹ for an immediate enquiry into the case of the shipwrights, and urged that they should be released from prison. The men had been holding meetings up and down the river, and resolving to cease work, unless the shipwrights were set free. Though the Union officials had reasoned with their men and done everything in their power to keep them at work, there was a strong undercurrent which threatened to drag them all down. The releasing of the shipwrights would be like lifting a bomb out of a powder cask.

Lord Balfour replied that the shipwrights' case should be taken first; he would do what he could to get their evidence; but he could not go so far as to urge the unconditional abrogation of the sentence. But "if at this great national crisis the result of our enquiry should be the prospect of industrial peace, then I think there will be terrible responsibility on anybody, whether in authority or out of it, who does not say 'Let bygones be bygones, and we shall not press for the extreme penalty that has been adjudicated.'"²

Mr. Macassey returned to London the same day, and proposed,³ at a meeting held late that night in the Ministry of Munitions, that the shipwrights should be released on bail, and the bail should be indefinitely prolonged. This was the only means of preventing a strike. The representatives of the Scottish Office who were present said that it was impossible to release sentenced prisoners on bail; the men must either be brought up in custody to give evidence or released altogether. The Scottish Office was ready to agree to the former course, but not to the latter. If the enquiry showed serious mismanagement and real grievances, there might then, when the report was received, be a case for recommending the Secretary for Scotland to mitigate the sentences. But until the enquiry was over nothing of this kind was possible. It was generally agreed that to bring the shipwrights up in custody would be most unwise.

Subsequently it was arranged that the evidence should be taken in prison. On 18 October, therefore, the Commissioners sat in Duke Street Jail to hear the facts of the Fairfield strike, on the 20th they listened to the pleadings, and on the 21st they issued an interim report.⁴ They found that a dispute of principle arose between the firm and the shipwrights, because the firm maintained their right to insert on the clearance certificates, to be granted to the dismissed men under the Munitions of War Act, words indicating that they had been discharged for "not attending to work." The immediate release of the three imprisoned shipwrights was claimed as a matter of principle, on the ground that the circumstances of the dispute at Fairfield, in regard to the clearance certificates and the dismissal of the two shipwrights, had not been submitted to full investigation and enquiry before the men were fined, and that, having regard to those circumstances, the fines and terms of imprisonment were excessive, and the machinery

¹ M.W. 56068/2.

³ M.W. 56068.

² M.W. 56068/2, p. 24.

⁴ M.W. 56068/2, pp. 257-260. Appendix II.

of the Act harsh in its application. But the men's going on strike was wrong, and prevented the investigation specifically provided by the Act. Moreover, the only question before the Tribunal was whether the men summoned before it had taken part in a strike contrary to the Act. The Commissioners had no power to re-try the imprisoned shipwrights or even to make any recommendation concerning them; but they had been impressed by certain of the circumstances anterior to the strike which, in their view, called for a remedy, and they proposed to make recommendations as to the form of clearance certificates under the Act, and as to the avoidance and settlement, in the future, of disputes similar to those that had occurred in the case of the shipwrights at Fairfield.

After reading out the report Lord Balfour added¹ that he had individually written a letter to the Secretary for Scotland on the subject of imprisonment, but as the letter he had written was no part of their report, he felt bound to refrain from making public what he had said.

The representatives of the Trade Unions were much disappointed when they heard this report, since they had virtually pledged themselves to secure the release of the imprisoned men. They therefore retired and almost unanimously passed the following resolution² :— "We refuse to take any further part in this Inquiry pending the release of the three shipwrights now in prison, and we now as representatives purpose going to our various districts and local committees and getting them together with a view to placing the whole situation before them, for the purpose of finding a way out of the present difficulty." Lord Balfour replied that he greatly regretted their decision, and he reminded them that they were taking the one course which, in his opinion, would make it absolutely impossible for an act of grace to be shown to the three shipwrights.

On 23 October the Ministry of Munitions received by telegram the following resolution³ :—

"That this Conference of members of the Executive Councils or District Committees of the 23 Trade Unions connected with the engineering and shipbuilding industry, representing 97,500 workmen in the Clyde Valley, view with profound alarm the statement of the Government Commission, appointed to enquire into the grievances of the workers arising out of the narrow interpretation and maladministration of the Munitions of War Act, that they have no power to recommend the remission of the sentence imposed upon the Fairfield shipwrights. This has created an obvious feeling of unrest and an evident desire on the part of the workmen to call a halt, which unrest can only be allayed by immediate action on the part of the Minister of Munitions and the Secretary for Scotland. We therefore, having regard to the serious situation created, and in the interest of the nation, unanimously urge the remission of the remainder

¹ M.W. 56068/2, p. 261.

² M.W. 56068/2, p. 264

³ M.W. 56068/6.

of the sentences imposed on these three Trade Unionists, with a view to restoring the confidence of the workers and promoting that harmonious feeling among all classes in the Country, which is so essential if our hopes and aspirations in this grave national crisis are to be realised, and demand an answer within three days."

The Ministry replied to this ultimatum with a request that a deputation should wait on the Minister. Accordingly, on 26 October, Mr. Lloyd George and Mr. McKinnon Wood, Secretary for Scotland, received a deputation from Glasgow along with representatives of the National Advisory Committee and the Councils of several of the Trade Unions concerned.¹ Mr. F. Smith opened on behalf of the Advisory Committee. Section 7 of the Munitions Act was the root of the trouble; it took away from the man the right to leave, but left the employer an unfettered right to discharge. The irritation caused by this grievance had brought the men out at Fairfield. The Advisory Committee and the Councils had no sympathy with the action of the men, and they repudiated the resolution sent to the Minister. But the sentence on the shipwrights was disproportionate to the offence; the men had already served three weeks; he therefore asked that they should be released.

Mr. Lloyd George said that an impossible position had been created by the action of the men locally. A Commission had been appointed to examine their grievances. The enquiry was the result of the legitimate demands of their responsible leaders, who had complained of the mismanagement at certain establishments. While the enquiry was in progress, the men had refused to give further evidence; they had even sent a telegram practically demanding the release of the shipwrights in three days. He said emphatically, speaking with the full authority of the Government, that a demand made in these terms could in no circumstances be considered. The prerogative of mercy could never be exercised under the pressure of threats. It was impossible to conduct further business until the resolution was publicly withdrawn.

Mr. Smith repeated his previous assurance. But Mr. McKinnon Wood insisted that a private repudiation was not sufficient; until the document was withdrawn publicly, the question of his right to advise the Sovereign could not arise. Mr. Sharp, who was chairman of the meeting which sent the resolution, explained how it came to be sent. The last words, demanding a reply in three days, were not part of the original motion, but were added under strong pressure. On his own behalf he was prepared to repudiate it. He then began to speak about the grievances on the Clyde. But Mr. Lloyd George said there was no use in further discussion. The deputation should withdraw and consider how they would make public the necessary repudiation. Mr. Smith pointed out that the deputation had no power

¹ M.W. 56068/6.

to bind the men who sent the resolution, but they were prepared to consider in what way they could meet the situation.

On the following morning another meeting took place. Mr. Smith stated that the Glasgow members of the deputation found themselves unable to repudiate the resolution without referring it back to the persons who had instructed them. The other members therefore proposed to defer the matter until a local consultation had been held. Mr. Lloyd George said there was another course. The deputation might take steps to see that the fines were paid. Since these were now only 2½ guineas a head, that seemed a reasonable solution. If the matter was settled one way or the other, the enquiry would be resumed immediately, and the Clyde grievances would be probed to the bottom.

The representatives of the Trade Unions took Mr. Lloyd George's suggestion and paid the fines. The shipwrights were released from prison. And in a clearer atmosphere the Commissioners resumed their enquiry on 4 November.

In the meantime the Fairfield Co. had taken strong exception¹ to the Commissioners' statement that they had "maintained their right to insert on the clearance certificates . . . words indicating that the men had been discharged for not attending to work." They denied any such intention, and stated that in no case of granting a clearance certificate had they inserted any remark as to the reason of discharge. Except for the fact that they did not explicitly repudiate any such intention when the trouble began, nor issue certificates of discharge to the men dismissed until the day after the trial, the evidence² appears throughout consistent with their contention, though the bulk of the men undoubtedly confused the pass-out check on which the objectionable words were written with the certificate of discharge. The Commissioners, however, maintained that their finding was a reasonable inference from all the circumstances elucidated in evidence and cross-examination. In the end the subject was dropped, but the firm felt that they had not been treated quite fairly.

X. The Enquiry by the Commission into the Grievances under the Munitions of War Act.

When the enquiry was resumed on 4 November, the representatives of the Trade Unions brought forward examples of the various grievances created or aggravated by the Munitions of War Act. Where the facts were not agreed, witnesses were produced by both sides and examined and cross-examined. Many of the cases turned out very complex, but a summary of their main features must be attempted in order to exhibit the nature of the causes to which much of the prevailing unrest was due.

Section 7 of the Act was the principal source of irritation. It prohibited, subject to a fine of £50 for each offence, the giving of

¹ M.W. 56068/3.

² See M.W. 56068/2, pp. 79, 91, 155, 176, 181.

employment to any workman, who had been engaged on or in connection with munitions work during the previous six weeks, unless he held a certificate of consent from his last employer or a certificate from a munitions tribunal stating that such consent had been unreasonably withheld.

The severity of the penalty deterred employers from engaging any man who could not produce a certificate. "No man," said¹ a Trade Union official, "will get a job on the Clyde unless he has a clearance certificate." But many workmen did not discover this until they had left their work and were looking for a new job.² They then lost time in applying to their previous employer for a certificate, which he not infrequently refused to issue on the ground that he was under no obligation to do so.³ The consequent application to a tribunal involved the loss of five days' (or more) work and wages.⁴

The trouble was aggravated by uncertainty concerning the meaning of munitions work and the scope of the Order of the Ministry under which Section 7 was applied to certain classes of establishments. And some hardship was due to the omission to allow a sufficient interval between the issue of the Order and its operation, to get the necessary forms printed and instructions circulated.⁵

But much more serious were the consequences of giving unregulated power to the management. There was no penalty for the refusal of a certificate, however unreasonable; strikes were forbidden; and if a man left without a certificate, he must walk the streets for six weeks, unless he had a case which he could establish before a Tribunal. Some managers and foremen became more autocratic and dictatorial in their treatment of the men,⁶ and began to use their new power to enforce changes, which previously could have been effected only by negotiation; while the workmen resented every order which they did not like, whether it was reasonable or not, as a direct consequence of the Act. For men of stubborn character find that which they would willingly do by consent intolerable under compulsion.

Men, dismissed for words with a foreman or refusal to do what they were told, were penalised by delay in issuing certificates, and kept idle for a week or more.⁷ Men thrown out of work by a breakdown or a strike were retained without compensation by the refusal of clearance lines.⁸ Men attracted from other districts by the prospect of working overtime and earning good money were not allowed to leave, although the loss of overtime made it very difficult to keep up two homes.⁹ Alterations in piece rates which diminished earnings,¹⁰ transfers from highly paid work, such as caulking, to work, dirty, disagreeable and less well paid, such as water testing,¹¹ were not accepted with any better grace because the Munitions Act threatened compulsion.

¹ HIST. REC./R./341/3. *Minutes of Evidence*, p. 226. ² *Ibid.*, p. 218.

³ *Ibid.*, pp. 217, 220. ⁶ *Ibid.*, pp. 97, 518. ⁹ *Ibid.*, pp. 292, 581.

⁴ *Ibid.*, p. 257. ⁷ *Ibid.*, p. 530. ¹⁰ *Ibid.*, p. 428.

⁵ *Ibid.*, pp. 288-290. ⁸ *Ibid.*, pp. 158-284. ¹¹ *Ibid.*, pp. 52, 73.

The grievances were as a rule trivial, if taken singly, but they were numerous and insistent. Take, for example, the story of a coppersmith.¹ He had been told one morning to complete a job which the plumbers, "the men we had allowed to go and tamper with our work," had begun and been unable to finish. He refused. "After an argument with my foreman from about 5 minutes past 6 to 7 o'clock, I proceeded to the manager's office and explained to him how the matter stood. He said, 'It is everybody for himself and his country at present, and you had best do the job.' I said to the manager, just as I had said to the foreman, that I did not feel inclined to do the job after the plumbers. He came with me to the copper shop and interviewed the foreman in his office. I stood in the shop. My foreman later came out and asked me into the office. He said, 'I came to you with a certain job this morning and asked you to do it in a hurry.' I said, 'Yes.' 'Did you do it?' I said, 'No.' 'Are you going to do it?' I said, 'No.' Excuse me, gentlemen—he said, 'Well, if you cannot do it, you are no bloody use to me.' These are the words he used. I said, 'Excuse me, if you give me my books and clearance line I might be of some use to some other body.' The manager said, 'This is where I come in. You will get no clearance line here. You are getting stopped for not doing what you were told.' Then they put me on a branch of my Trade in connection with which I had done nothing for six or seven years."

A common grievance arose out of the consistent refusal of the federated employers to grant leaving certificates to young men on the termination of their apprenticeship.² The custom of the A.S.E. was that these young journeymen might either remain as improvers with the firms with whom they had served, starting at a loosing rate of 30s. a week and advancing by instalments of 2s. every three months to the district rate, or else leave; but if they left they must either obtain the standard rate and conditions elsewhere or pay a fine to their Society. The Tribunals held that the action of the employers was unreasonable, and granted certificates. But the employers continued to oppose every case, maintaining that the question really concerned wages and was as such outside the Tribunal's jurisdiction. If a court of appeal was set up, they intended to challenge the decisions given, but they could only keep the right of appeal open by refusing to grant certificates.

Another source of irritation was the refusal of certificates to men who wished to take up work which was not only better paid but more important, as foremen, inspectors or marine engineers.³ The Act found some men temporarily working as labourers, who were not able to take the opportunity of returning to their trade, because they could not obtain clearance lines. Special difficulties occurred in respect of medical certificates.⁴ Employers so often found these unsatisfactory

¹ HIST. REC./R., 341/3. *Minutes of Evidence*, p. 601.

² *Ibid.*, pp. 239-251.

³ *Ibid.*, pp. 170, 173, 174, 197.

⁴ *Ibid.*, p. 257, pp. 209, 228-232.

that they left the Tribunal to decide whether a claim to change of employment on grounds of health was sound. But this involved a week's delay.

The great bulk of the evidence related to grievances concerning leaving certificates. But there were other causes of annoyance, not the least of which was the delay in getting the machinery of arbitration to work.¹ The men were constantly referred from one department to another; often only the receipt of their letters was acknowledged, or they were informed that the matter was under consideration and heard no more. "Talk about the Government and the Ministry of Munitions," one official exclaimed,² "look at that bundle of correspondence which has taken place since July. That is a real case for grievance under the Munitions Act."

There was also unrest among the American and Canadian workmen, of whom several hundreds had been brought over to the Clyde.³ Many of them had been led to expect higher earnings than were obtainable; and one agency had stated that the standard rate, with overtime, would bring the average weekly wage to £6. Those who had left families behind were naturally aggrieved when they found it difficult to earn half as much.

Finally it was maintained that the Munitions Act was undermining the Trade Unions.⁴ Members were refusing to pay their subscriptions. They argued that since the Government insisted on the relaxation of Trade Union rules, and the Union could no longer protect its members in the workshop, there was no reason to continue paying. Nor had the Unions any power to insist that the men brought into the shops from elsewhere should join their Societies. The loss of the right to strike made it impossible to enforce membership; and the employers were reluctant to give the Unions any support. There was a widespread fear that it might not be possible to preserve intact until the end of the War organisations which had been built up after many years of toil and sacrifice. The representatives of the Trade Unions therefore urged that the Government should require all craftsmen to meet their obligations to their Societies, and newcomers into the munitions trades to take up temporary membership.

The Trade Unions completed their evidence on 23 November. In the meantime the employers proposed⁵ to put forward what they believed to be the causes of discontent and unrest, namely, the uncertainty of Union officials and workmen generally as to the obligations imposed by the Act, their unwillingness to suspend Union rules and restrictions, and their continual efforts to secure irregular increases in rates and earnings. The Commissioners were doubtful how far these questions were covered by their terms of reference, and asked the Minister to modify their reference if he desired them to hear the employers' case. The Ministry replied that the employers should be

¹ . HIST. REC./R./341/3. *Minutes of Evidence*, p. 373.

² *Ibid.*, p. 651.

⁴ *Ibid.*, pp 506, 523 .

³ *Ibid.*, pp. 262, 340, 575.

⁵ *Ibid.*, pp. 554, 555.

heard on matters which the Commissioners considered relevant, but their reference could not be modified.¹ The employers insisted on an assurance that their whole case would be heard, failing which they refused to proceed.

XI. The Recommendations of the Commission.

In view of this deadlock, the Commissioners decided to draw up without delay a report on the evidence taken, in order that the Government might have their recommendations before it in preparing the Bill to amend the Munitions Act. This course was strongly urged upon them by the Trade Union officials on account of the unrest which still prevailed.²

The Commissioners emphasised the vital importance of dealing with every dispute at its source.³ Friction might arise out of a substantial grievance or mere indiscretion; but the trouble soon engendered widespread irritation, and "frequently from adventitious causes wholly unconnected with the origin or merits of the dispute it becomes elevated into a question of principle affecting all employers and munition workers generally throughout the district." "We have come to the conclusion that if there was some person of experience in industrial matters appointed in the Clyde District to act as a mediator or conciliator, with possibly final power in minor matters, accessible with a minimum of delay, the great majority of the disputes we have enquired into would have been prevented, and those not wholly disposed of localised in their effects."

The Commissioners recommended that the employer should be prohibited from entering reasons for dismissal on a clearance certificate,⁴ and bound to give such a certificate to a dismissed workman immediately on dismissal, unless the workman had acted improperly so as to secure dismissal⁵; if an employer refused a certificate unreasonably, the Munitions Tribunal should have power to award compensation for unemployment consequent upon the refusal⁶; if a workman applied to a Tribunal for a certificate in order to take up munitions work elsewhere, the Tribunal should have regard to the question where his skill was more likely to be used in the interests of the Country⁷; if it was proved that a workman was not receiving the district rate of wages, he should be entitled to a clearance certificate⁸; Tribunals should have power to issue certificates that workmen had not been employed on or in connection with munitions work.⁹

¹ HIST. REC./R./341/3. *Minutes of Evidence*, p. 707. M.W. 56068 9.

² M.W. 56068/21.

³ *Clyde Munition Workers*. Report of the Rt. Hon. Lord Balfour of Burleigh, K.T., G.C.M.G., and Mr. Lynden Macassey, K.C. Cd. 8136, paragraphs 2-4, 8, 9, 17. Appendix IV.

⁴ *Ibid.*, 6 (A).

⁶ *Ibid.*, 6 (C).

⁸ *Ibid.*, 6 (J).

⁵ *Ibid.*, 6 (B).

⁷ *Ibid.*, 6 (E) and (G).

⁹ *Ibid.*, 6 (F).

These recommendations were adopted in the amending Bill.

The Commissioners also suggested that if a workman unreasonably proceeded against an employer for a clearance certificate, the Munitions Tribunal should have power to award the employer reasonable costs¹; if an employer refused a certificate, he should be bound to give the workman in writing the reason for his refusal²; in every establishment procedure should be prescribed for the issue of certificates, since delay, misunderstanding and irritation had been caused by the uncertain division of responsibility between foremen, timekeepers and managers.³

These recommendations were not accepted. Nor were their proposals embodied in the Bill, which related to the granting of certificates to workmen who wished to be nearer their homes,⁴ and to the appointment of a medical referee where medical certificates were disputed,⁵ since it was felt that these matters might safely be left to the discretion of Tribunals.

In addition to their proposals concerning leaving certificates, the Commissioners recommended that the definition of munitions work should be extended⁶; a court of appeal should be provided from the decisions of Local and General Munitions Tribunals⁷; an employer should not be allowed to dismiss a munition worker without reasonable cause⁸; works rules should be so far as possible uniform and published in writing⁹; the position of workmen not employed on munitions work in controlled or other establishments partly engaged in making munitions should be clearly defined¹⁰; imprisonment should be abolished for the failure to pay fines, which should be deducted from wages by the employer on the Tribunal's order.¹¹

All these recommendations, except the third, were ultimately adopted. The proposal to limit dismissal was given effect so far as practicable by Section 5 (3) of the amending Act, which prescribed that a week's notice or wages in lieu of notice should be given unless the Tribunal was satisfied that owing to the discontinuous or temporary nature of the employment or the misconduct of the workman the employer had reasonable cause for dismissing the workman without a week's notice.

The Report was received at the Ministry on 6 December, and on the 14th Mr. Lloyd George directed that it should be laid before Parliament.¹²

¹ *Clyde Munition Workers*. Report of the Rt. Hon. Lord Balfour of Burleigh, K.T., G.C.M.G., and Mr. Lynden Macassey, K.C. Cd. 8136, paragraphs 2-4, 8, 9 17. 6 (D). Appendix IV.

² *Ibid.*, 6 (L).

⁶ *Ibid.*, Section 7.

¹⁰ *Ibid.*, Section 13.

³ *Ibid.*, 6 (M).

⁷ *Ibid.*, Section 10.

¹¹ *Ibid.*, Section 18.

⁴ *Ibid.*, 6 (H).

⁸ *Ibid.*, Section 11.

¹² M.W. 56068/10 and 19.

⁵ *Ibid.*, 6 (I).

⁹ *Ibid.*, Section 12

CHAPTER III.

The Munitions of War (Amendment) Act, 1916.

I. The Origin and Growth of the Bill.

"The whole of this Bill consists of concessions," Mr. Lloyd George told¹ the House of Commons on 17 December, 1915. There was no departure from the principles of the Munitions of War Act, but some amendment was desirable in order that it might work more smoothly. Invited by Mr. Pringle to abolish the punitive and coercive provisions of the Act, and to recant the doctrine of compulsion for labour proclaimed at Manchester on 3 June,² Mr. Lloyd George replied³ :—

"I do not recede from a single word I said then. . . . I still say that the State ought to have the right, in any great emergency where the life of the Nation depends upon it, to demand the services, the wealth and the resources of every citizen. I do not recede from a single syllable which I said then. The Munitions Act is not a carrying out of that ; it is an alternative to it. Why is no Munitions Act required in France ? Because they, being a perfectly democratic State, have taken the other and wider view, that they have the right to commandeer every resource, every power, life, limb, wealth and everything else for the interest of the State. That is why you have no Munitions Act there. The Munitions Act is an alternative to that, and is not the carrying out of that in the least. It is purely an expedient, because you have not adopted the wider principle. . . . This is the only way in which you can act in the absence of a general organisation of that kind in the State. It is the only way in which you can possibly carry on the work. It is said it is an interference with liberty. So is every law. It is said it is an interference with the pure, unfettered right of the subject. Every law is that. The only point is whether it is essential in the interests of the State at this moment. I have not the faintest doubt that it is absolutely essential, and that it is impossible to carry out the work of the State without powers of this kind."

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2484.

² See Vol. I., Part IV., Section V.

³ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2123.

The decision to draft an amending Bill was taken by Sir H. Llewellyn Smith on 26 September, 1915, on account of the opinion given two days before by the Law Officers of the Crown that Government factories could not be declared controlled establishments in view of the structure of Part II of the Munitions of War Act.¹ In the course of the following month Mr. Wolff and Mr. Miles brought forward a number of points which it was thought desirable to deal with in the Bill.² The chief among these were (1) that provision should be made for punishing incitement to strike or conspiracy; (2) that the definition of munitions work should be extended in order to bring the construction of munitions factories and docks and the supply of power and light within the scope of Section 7; (3) that appeals should be provided from munitions tribunals in order to secure uniformity in their decisions; (4) that power should be taken to make rules regulating the administration of Section 7, and in particular requiring employers to give leaving certificates forthwith on the dismissal or discharge of workmen and prohibiting the entry of any mark or observation on such certificates.

THE WORKMEN'S DEMANDS.

On 11 November Sir H. Llewellyn Smith wrote³ to Mr. Henderson enclosing a copy of the Bill. "Mr. Lloyd George," he said, "asks me to say that he is apprehensive that there will be insufficient time for the passage of the Bill unless it is introduced almost immediately. He would therefore be greatly obliged if you would look at the draft in consultation with such members of the National Labour Advisory Committee as can be readily brought together at the very earliest possible moment. . . . We ought to be in a position to circulate it to the Cabinet and introduce it early next week."

The National Advisory Committee, however, considered⁴ that so important a measure required more than a cursory examination, especially in view of the evidence which was then being laid before the Clyde Commission. They therefore discussed the Bill in detail, and on 17 November met in conference Sir H. Llewellyn Smith. They stated that they agreed to the Draft Bill as it stood, but would be glad

¹ M.W. 21985/9. The Law Officers indicated no reason more definite than the structure of Part II. of the Act. The difficulties were more fully explained by the Treasury Solicitor. (1) The Crown was not mentioned in the Act in such a way as to suggest that it could be bound. (2) Sections 4 and 5, in so far as they dealt with the restrictions of profits, were clearly not applicable to the Crown. (3) The Crown could not be deemed to have entered into an undertaking to carry out the provisions set out in the Second Schedule to the Act. (4) The Crown could not be liable to any of the penalties referred to. In short it was difficult to suppose that the Government could take advantage of parts of a series of provisions such as those contained in Sections 4 and 5 and Schedule II. (which appeared to aim at a reciprocal surrender by employers and employed of their ordinary legal rights) while remaining unaffected by the restrictions imposed upon employers.

² M.W. 58604.

³ M.W. 58604/2.

⁴ N.A.C. *Minutes*, 43.

if the following points¹ could be embodied in it so far as was necessary. Railway shops partly engaged in the manufacture of munitions should be declared controlled establishments, since they were taking advantage of the Act and endeavouring to remove trade union restrictions without complying with the second schedule of the Act, or binding themselves to restore any rules or practices that might be suspended.² Leaving certificates should be issued to workmen who desired to take up work elsewhere in a higher capacity, for example as foremen. If a workman was suspended from work for want of material, he should be entitled to a leaving certificate or maintenance. If a workman was summoned before a Tribunal by his employer and the case was dismissed, or if he appealed to a Tribunal for a leaving certificate and the Court decided that the employer had unreasonably withheld it, the employer should meet the out of pocket expenses and time lost attending the Tribunal. No workman should be discharged without due notice. Prosecutions of workmen should not be instituted without the previous consent of the Minister of Munitions. The assessors of Munitions Tribunals should be four in number and members of the Court, which should decide by a majority vote. A Court of Appeal should be set up in each munitions area, consisting of persons of a status not lower than a County Court Judge or Recorder. Finally, the Committee urged the necessity of the Ministry of Munitions taking power to establish standard rates for women in controlled establishments.

The Committee gave further consideration to the Bill on 23 November at a meeting which was attended by the Council of the Federation of Engineering and Shipbuilding Trades and members of the A.S.E. and the Boilermakers.³ It was then decided to submit "the whole question of the Amendment Bill" to a larger and more representative body. Accordingly, the Committee summoned a Conference representative of 55 Trade Unions at the Central Wesleyan Hall, Westminster, for 30 November.

The Conference was addressed by Mr. Clynes and Mr. F. S. Button in criticism of the Munitions of War Act, and Mr. Lloyd George who had been invited to attend replied,⁴ stating that he was in favour in principle of many of the proposals which had already been placed before him by representatives of the Trade Unions and promising that those to which he could not then agree should have his close and sympathetic consideration. The Government desired the Act to work smoothly and satisfactorily. In the speeches which had been made it appeared to have been overlooked that, while the Munitions of War Act interfered to some extent with the liberties of the workman, the Minister of Munitions possessed extensive powers over controlled establishments which cut quite as deeply into the rights of private employers as any provision affecting workmen. He presumed that there was no desire on the part of the Trade Unions to repeal the part of the Act affecting employers. One chief object

¹ M.W. 58604/13; N.A.C. *Minutes*, 46.

² N.A.C. *Minutes*, 47.

² See M.W. 33076 and sub-files.

⁴ N.A.C. *Minutes*, 49.

of the Act was to give the State control over unlimited competition, a principle which many labour men had been advocating for a long time. During the progress of this War more things had been done to further the principles of the Labour movement than the propaganda of a generation had been able to secure.

It might seem hard that a workman could not leave one shop to go to another, but the same restriction applied to the soldier who objected to storm the Hohenzollern Redoubt and would prefer to go to some place behind the fighting line. If this War was a just war, if we were fighting for humanity and for the overthrow of the domination of a military caste in Europe, it was not for men to stand out at such a time for the right to leave one shop to go to another when the whim seized them. He noticed that most of the amendments were in the direction of what might be called reciprocity. There was a feeling that if a workman could not discharge his employer without a certificate from a tribunal the employer ought not to be able to discharge the workman without a similar certificate. He had a good deal of sympathy with that, and the point would be considered.

There were also matters affecting the powers of the Ministry in enforcing recommendations upon controlled establishments, and the constitution of Munitions Tribunals was a subject worthy of consideration. He could only state that when the deputation appointed by the Conference met him in the evening with the Conference's recommendations, they would sit down and seriously consider how best the wishes of the Trade Unions might be met.

The amendments¹ proposed by the Conference were numerous and elaborate, but the chief new points contained in them were the following. If either party to a difference desired arbitration, the Board of Trade should be obliged to appoint an arbitrator within six days. The onus of proving that a workman's services were indispensable should be thrown on the employer, while the workman should have the right of appealing to a Tribunal against dismissal. If the workman succeeded, he should be entitled to six weeks' further employment. No change in workshop regulations should be made, and no rules (other than the model rules issued by the Minister of Munitions) should be posted or enforced by employers or taken cognisance of by a Munitions Tribunal unless they had been agreed to by the Unions and employers concerned. If a complaint was made before a Munitions Tribunal by, on behalf of, or against a woman, one of the assessors should be a woman. Imprisonment in default of the payment of fines should be abolished. Joint Committees representing the Government, the employers and the workmen should in each munitions area hear cases in which difficulties had arisen with a view to their settlement by friendly negotiations before they were taken to a Munitions Tribunal. The Minister should take power to enforce a minimum wage for all women engaged on munitions work to which Section 7 applied.

¹ M.W. 58604/39.

THE EMPLOYERS' CRITICISMS.

On 2 December representatives of the Engineering and Ship-building Employers' Federations discussed the points raised by the Trade Unions with Dr. Addison and Sir H. Llewellyn Smith, and on the next day laid their views before Mr. Lloyd George.¹

They objected to the proposal that the Board of Trade should be obliged to appoint an arbitrator within six days. It would reduce the Board to a mere Post Office, and remove all opportunity of turning down frivolous cases.

Section 7 they regarded as vitally important. To repeal it would take the whole essence out of the Act. Nor were they ready to consent to any limitation of the right of dismissal. The reciprocity desired by the Trade Unions would entirely upset discipline and the employer's management of his own business. Moreover, the scarcity of labour rendered any protection against the employer's right to dismiss quite unnecessary. Mr. Lloyd George, however, said he felt it was a genuine difficulty to deny some measure of reciprocity to Labour in view of the profound effect of Section 7 on the workman's position. He put it to the employers that he wanted them to help him to discover an alternative to the proposal of the Trade Unions which would be a genuine concession while interfering with the management and lessening the effect of Section 7 as little as possible. After some discussion, the employers said that although the six weeks' notice asked for by the Trade Unions was out of the question, if six days' notice would help the Minister they would, though reluctantly, be prepared to accept this. Ship repair work, however, must be excluded.

They were ready to agree that prosecution before a Munitions Tribunal should only be possible in respect of rules approved by the Minister, provided that they were not prevented from posting their own yard rules.

They urged that the Munitions Tribunals had been altogether too lenient in their administration of the Act. Objection was taken to any increase in the number of assessors and to their voting, but not to women acting as assessors in cases where women were concerned. They opposed the abolition of imprisonment. It would be universally construed as a confession that the Act could not be enforced by the ultimate penalties, and would increase the unpleasant duty of deducting fines from wages. Even now, employers were often believed to be keeping the fines for themselves.

They strongly objected to the proposal that joint committees should be formed to sift cases which might otherwise come before a Tribunal. They had no time to spare for any more committees or tribunals. Their business was to secure output, not to sit on various bodies to enquire into grievances and offences. The real

¹ M.W. 58604/44.

object of the proposal was to destroy the Munitions Tribunals. It was simply a further device to weaken the Act. Mr. Lloyd George pointed out that a good deal of friction could be saved by the operation of such a joint committee. He felt there was something to be said for it, but took note of the employers' views.

Finally the employers opposed the proposal that the Ministry should take power to fix minimum wages for women engaged on munitions work. It was an attempt under the guise of the Munitions Act to fasten on the engineering firms generally the Trade Boards Act, an attempt which the employers had successfully resisted for some time. It was both unnecessary and unfair to certain branches of the trade. If there was any real difficulty, the question could always be determined under Part I. of the Act and the Fair Wages Clause. They allowed, however, that there would be no great objection, if the proposal were limited to women replacing men. Indeed, the Engineering Employers' Federation had already recommended their members to adopt the rates and conditions of Circular L.2.

The Report made by Lord Balfour of Burleigh and Mr. Lynden Macassey on the Clyde munition workers was sent to the Minister on 6 December and published on the 14th. But the evidence taken before the Commission had been forwarded to the Ministry as it was printed, and the grievances pressed by the local trade union officials were well known at the headquarters of their Societies. The work of the Commission therefore helped to determine the character of the Bill to an extent which the date of their Report would not indicate.

The Bill was presented on 9 December, read for the second time on the 15th, and considered in Committee on the 17th. It was intended to take the Report stage on the 22nd, but Mr. Lloyd George had already started on his visit to the North to urge the necessity of proceeding with dilution, and after appeals from various parts of the House the Prime Minister consented to postpone the further consideration of the Bill until the first day after the Adjournment, 4 January, 1916. This delay rendered possible the National Conference of the Amalgamated Society of Engineers on 30 December and the deputation to the Prime Minister on the following day, when the representatives of the A.S.E. promised on behalf of the Society to accept the scheme of dilution and to co-operate actively therein, on condition that the Government pledged itself to take power in the Bill to enforce in controlled establishments the rates of pay and conditions of labour set out in Circulars L.2 and L.3.¹ The Bill passed through its various stages in the House of Lords on 11, 13, and 19 January, and received the Royal Assent on 27 January, 1916.

II. Section 9. New Definition of "Munitions Work."

The amendment of the definition of munitions work in Section 3 of the principal Act was directed to secure the benefits of the leaving

¹ See Vol. IV., Part I., Chap. IV., Sect. XI.

certificate, compulsory arbitration and control for work essential for the production of munitions, in particular for the construction and repair of munitions factories and for the supply of light and power. At first the Ministry was very reluctant to extend the scope of the definition any further than was imperative; but this attitude was relaxed as the concessions in respect of the leaving certificate grew, and in the end a very wide meaning was given to the term, partly by adding words cumulatively to cover other classes of work, partly by giving the Minister power to specify necessary materials and to certify undertakings of importance for the purpose of carrying on munitions work.

The definition ultimately ran as follows :—

The expression “munitions work” for the purposes of the principal Act and this Act means—

- (a) the manufacture or repair of arms, ammunition, ships, vessels, vehicles, and aircraft, and any other articles or parts of articles (whether of a similar nature to the aforesaid or not) intended or adapted for use in war, and of any other ships or vessels, or classes of ships or vessels, or parts of ships or vessels, which may be certified by the Board of Trade to be necessary for the successful prosecution of the war, and of any metals, machines, or tools required for any such manufacture or repair, and of the materials, of any class specified in an order made for the purpose by the Minister of Munitions, required for, or for use in any such manufacture or repair as aforesaid; and
- (b) the construction, alteration or repair of works of construction and buildings for naval or military purposes, and of buildings in which munitions work is or is intended to be carried on, and the erection of machinery and plant therein and the erection of houses for the accommodation of persons engaged or about to be engaged on munitions work; and
- (c) the construction, alteration, repair, or maintenance of docks and harbours, and work in estuaries, in cases where such construction, alteration, repair, maintenance, or work is certified by the Admiralty to be necessary for the successful prosecution of the war; and
- (d) the supply of light heat, water, or power, or the supply of tramways facilities in cases where the Minister of Munitions certifies that such supply is of importance for the purpose of carrying on munitions work, and the erection of buildings, machinery, and plant required for such supply; and

- (e) the repair of fire engines and any other fire brigade appliances in cases where the Minister of Munitions certifies that such repair is necessary in the national interest.

The chief extensions of the definition in the principal Act referred to the following classes of work :—

(1) *Merchant Ships*.—On 28 November the Admiralty wrote¹ strongly urging that the definition should be extended to include merchant shipbuilding and repairing. The Ministry was at first reluctant to accede to this request. But on 30 November Mr. Balfour wrote² as follows to Mr. Lloyd George :—

“ I hear there is a difficulty, which I quite understand, with regard to introducing an amendment into the new Munitions Bill, which would permit of the building of merchant ships to be treated as war work: I trust this decision will be reconsidered. It really *is* war work in the strictest acceptance of the word. Merchant ships are requisitioned to carry ores and other material for munitions; to carry meat for the Army; and coal and oil for the Fleet. I don't see how we can at the same time carry on these services and leave sufficient tonnage to supply the trade of the country with raw material and the people of the country with food unless we help the building of merchant ships.

“ The building of oilers, I may incidentally remark, has already been treated as a war service, so there is no new departure.

“ I very earnestly beg that this matter will receive favourable consideration.”

On the same day Mr. Runciman wrote to Mr. Lloyd George in similar terms, and added that it was quite impossible to proceed with merchant shipbuilding at anything like an adequate rate unless it was treated as war work.³ Accordingly provision was made in paragraph (a) to include the building and repair of merchant ships and marine engines certified by the Board of Trade⁴ to be necessary for the successful prosecution of the war.

(b) *Materials*.—The extension of the definition to materials involved some difficulty. For while the inclusion of the materials necessary for the manufacture of explosives, in particular coal tar products and cotton waste, was urgent, coal and cotton must be excluded owing to the opposition of the miners and the cotton operatives. The difficulty was surmounted by giving the Minister power to specify by Order the classes of material, to the manufacture of which the expression “ munitions work ” should apply.⁵

¹ M.W. 58604/12.

² M.W. 58604/58.

³ M.W. 58604/58.

⁴ The Board of Trade was substituted for the Admiralty as the certifying authority in Committee on the motion of Mr. Hodge. *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2436.

⁵ In accordance with this provision Balloon fabric, Constructional Steel, Fire-brick, Glass for constructional purposes, Glass for optical purposes, Lead

(c) *Works of Construction and Buildings.*—This extension was especially welcomed by the Admiralty and the War Office, inasmuch as it was expected to remove some of the difficulties experienced in connection with the supply of navvies and building labour.¹ Docks and harbours certified by the Admiralty were added on the suggestion of Mr. Holt, who warned the House that the dock authorities were finding it more and more difficult to keep together the men necessary for their work. Recently repairs to the landing stage at Liverpool had been held up because the men preferred to leave and could not be prevented.²

(d) *Public Utility Services.*—These services were anxious to come under the aegis of the Act in order to retain their staffs against the claims of the Army and the attraction of the munitions works. But the maintenance of their efficiency scarcely fell within the province of the Ministry. Except in a few great centres of industry, it may be doubted whether any of them was primarily subservient to the production of munitions, although they were clearly indispensable for that purpose. But pressure was brought to bear on the Ministry, because no other means of protection were thought to be effective. The claim of the power stations was especially strong, since a large number of munitions factories were electrically driven, and the power stations found difficulty in retaining their mechanics. And gas works not only supplied light, heat, and power, but materials for the manufacture of explosives. Accordingly, the supply of light and power appeared among the first suggestions for inclusion in the Amending Bill.³ Heat and water soon followed. The supply of tramways facilities was added in Committee⁴ on the proposal of Sir G. Scott Robertson, acting on behalf of the Municipal Tramways and Municipal Corporations Associations. In each case a certificate from the Minister was required that the supply was of importance for the purpose of carrying on munitions work. The repair of fire engines, if certified by the Minister as necessary in the national interest, was accepted in the House of Lords on the motion of Lord Peel.⁵ But both Houses refused to consider the proposal to include "the maintenance of sewerage systems of local authorities."⁶

Compounds, Magnesite Brick, Materials required for, or for use in, the manufacture of Explosives, Silica Brick and Worked Timber were scheduled on 14 February, 1916; Card Clothing on 12 May, all materials wholly or partly manufactured from Wool on 27 July, Lime on 4 December, Shrunk Dolomite on 29 January, 1917; all materials wholly or partly manufactured from Flax or Jute on 27 March, Motor Spirit, Naphtha Paraffin Burning Oil, Lubricating Oil, Gas Intermediate and Fuel Oil, Paraffin Wax on 2 April, Leather on 29 May, 1917; and Flax on 27 June, 1918.

¹ M.W. 58604/12.

² *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2440, LXXVII., 908.

³ M.W. 58604.

⁴ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2442, LXXVII., 909.

⁵ *Parliamentary Debates* (1916), *H. of L.*, XX., 914.

⁶ *Parliamentary Debates*, *H. of C.*, LXXVII., 910; *H. of L.*, XX., 912.

III. Section 5. Amendment of the Provisions relating to Leaving Certificates.

The most complex section of the new Act was Section 5, which limited the power given to employers by Section 7 of the principal Act, and met so far as practicable the grievances alleged by the workmen against its misuse.

(a) *Form of Certificate*.—It was provided that all certificates, whether issued by employers or tribunals, should be uniform in type, and state without note or mark of any kind that the workman was free to accept other employment (Subsections 1 and 6 (c)). The object of this provision was to prevent certificates being used as character notes, and to meet the alleged grievance that when a workman, being refused a certificate by his employer, appealed to a Munitions Tribunal, and was granted a certificate, he was apt to find other employers discriminating against him because the form of the certificate showed that it had been given by a Tribunal and not by his previous employer.

(b) *Dismissal, Discharge, Suspension*.—Subsection (2) provided that if the employer dismissed or discharged a workman, subject to the provisions of the section, he was bound to give him a leaving certificate forthwith. Moreover, where such a workman had for a period of more than two¹ days been given no opportunity of earning wages, his employer, if the workman wished to leave and asked for a certificate, was obliged to give it to him. Should the employer fail to give the certificate as required, the workman could complain to the local Munitions Tribunal, which must not only issue or order the issue to him of a leaving certificate, but might also order the employer to pay him such sum, not being more than £5, as it thought fit, unless it was of opinion that the workman had been guilty of misconduct for the purpose of obtaining dismissal or discharge. The same right was secured to a workman who left because of conduct on the part of his employer, or any agent of his employer, which would justify him in terminating immediately his contract of service.²

(c) *One Week's Notice*.—Subsection (3) provided that if the employer of a man, engaged on munitions work in an establishment to which the Section applied, terminated the contract of service by dismissal without one week's notice or wages in lieu of notice, the

¹ "Two" was substituted for "three" in Committee after an interesting discussion on the subject of suspension. *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2393-2401. The Munitions (Leaving Certificate) Rules provided that the two days should be *working days*, in order that a man might be given his customary holidays without obtaining thereby the right of changing his employment.

² This provision was introduced by the Government on Report at the suggestion of Mr. Anderson, who cited a case of several women subjected to indecent insult by a foreman on night shift. They were refused certificates by their employer, but left work and obtained certificates from the Tribunal, losing, however, £1 each in wages and 2/6 expenses in attending the Court. *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2387, LXXVII., 899.

employer was obliged to report the matter within 24 hours of giving notice of dismissal.¹ On a complaint made by the workman to a Local Munitions Tribunal, the Tribunal might order the employer to pay compensation up to £5 to the workman in lieu of notice, unless the Tribunal was of opinion that, owing to the discontinuous or temporary nature of the employment or misconduct of the workman, the employer had had reasonable cause for dismissing him without a week's notice. Workmen engaged in ship-repairing were excluded from the provisions of this subsection.²

This provision was designed to meet the complaint that whereas under Section 7 of the principal Act a workman could not leave one employer for another without the consent of the first employer or a certificate from a Munitions Tribunal (except under penalty of six weeks' loss of wages), he could at any time be dismissed by his employer at a moment's notice. It was indeed suggested by some of the workmen's representatives that if they were liable to a period of six weeks' unemployment by leaving unreasonably, the employer should be liable to give them six weeks' notice or wages for dismissing without good reason. This, however, would have been impossible in practice, and was not fair as between employer and workman. All that the workman really needed was a reasonable time within which to look for another job. Too heavy a penalty upon the employer in regard to selecting and keeping his staff would have made discipline impossible. Finally, it would have been absurd to require an employer to pay a workman six weeks' wages in lieu of notice, say £20, and for the workman then to get another job at once.

(d) The object of subsection (4) was merely to make it plain that an employer might engage, without incurring any of the penalties of Section 7, a War Muniton Volunteer assigned to him by the Minister, although the Volunteer had no certificate from his previous employer.

(e) *Grounds for Releasing a Workman.*—Subsection (5) laid down certain questions which a Munitions Tribunal was required to take into consideration in determining whether a certificate had been unreasonably refused.

(1) Had the workman left, or did he want to leave his work “for the purpose of undertaking any class of work in which his skill or other personal qualifications could be employed with greater advantage to the national interests”?

(2) Had the employer “failed to observe the conditions laid down in the fair wages clauses required by resolution of the House of Commons to be inserted in Government contracts”?

¹ Rule 10 provided that the employer should report the matter to the Labour Exchange, specifying the grounds on which he had dismissed the workman without notice.

² The Minister was given power to exempt other classes of workmen if expedient. But this power was never exercised.

³ Added in Committee on the proposal of Mr. Hodge. *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2409.

(3) Had the workman "recently completed a term of apprenticeship or period of learning his trade or occupation," and did he desire "to obtain the full standard rate of wages applicable to fully qualified workmen in his trade or occupation"?¹

(f) *Power to make Rules.*—Subsection (6) authorised the Minister to make rules generally for carrying the Section into effect, and in particular—

(1) To provide for the issue, form, custody, duration, delivery up and replacement of certificates. The provision for the delivery up of certificates covered the case of a workman who by retaining his certificate might obtain further employment although he had left an intermediate employer without consent.

(2) To provide for the issue of certificates that a man was not engaged on munitions work. This had already been done by the Tribunals in practice, but it was thought desirable to give legal sanction to it.

(3) To provide that the certificate should have nothing on it to indicate the cause of a man's leaving, in order to meet the grievance that the certificate had been and could be used as a character note.

(g) Section 12 declared that the term "workman" included not only persons whose usual occupation consisted in manual labour, but also foremen, clerks, typists, draughtsmen, and other persons whose usual occupation consisted wholly or mainly in work other than manual labour.²

IV. Amendments relating to Munitions Tribunals.

Section 18 referred to Munitions Tribunals. In order to bring the new offences created by the amendments relating to leaving certificates within the jurisdiction of Local Munitions Tribunals, subsection (1) provided that they should have power to deal with all offences for which the maximum fine did not exceed £5.

Subsection (2) provided that the chairman of a Munitions Tribunal should consult with his assessors before giving his decision. The Trade Unions had asked that the assessors should be four in number and should have votes. But it was felt that an increase in the number of assessors would tend to delay, doubt and indecision, and would not secure more representative opinions; while if the assessors had votes, the constant change of personnel would be likely to produce varied decisions, the lack of uniformity in which had already been a constant source of complaint. In Committee, however,

¹ Added in Committee on the proposal of Mr. Wilkie. *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2410.

² Rule 15 explained that it included not only male but female persons.

Mr. Lloyd George agreed to add that where the assessors were agreed, the chairman should, except on questions of law, give effect to their opinion in his decision.¹

It was also provided that where female workers were concerned in any proceedings before a Munitions Tribunal, the assessor, or one of the assessors, representative of the workpeople, should be a woman.

Subsection (4) made directors and other officers of companies personally liable for offences under the Act.

Subsection (5) enabled orders of Munitions Tribunals to be enforced in like manner as orders of Courts of Summary Jurisdiction. It was rendered necessary in view of the power of making orders for the payment of compensation by employers to workmen under Section 5 (2) and (3).

PROVISION OF AN APPEAL TRIBUNAL.

A Court of Appeal was provided by Subsection (3). Various schemes had been put forward in the course of the Bill's development. It was originally proposed² to provide by the amendment of the Munitions Tribunal Rules (1) for an appeal from a Local to a Special General Munitions Tribunal, consisting of an ex-Judge of the High Court, or some other distinguished lawyer sitting with assessors; (2) for an appeal from a General Munitions Tribunal by statement of a case to the Divisional Court in accordance with the provisions of the Summary Jurisdiction Acts. Then a clause was drafted³ authorising the Minister to make regulations enabling the umpire appointed under Part II. of the National Insurance Act, 1911, to decide whether a workman or any class of workmen were engaged on munitions work. But on 5 November it was agreed to drop this clause on the ground that it was better to leave the Tribunals to decide the cases without power of appeal for harmonising their decisions. The Bill as printed by order of the House of Commons on 9 December contained the following clause⁴ :—

“Rules under section fifteen of the principal Act shall provide for allowing appeals on questions of law to be made from Munitions Tribunals of the first or the second class to a court specially constituted for the purpose, consisting of one or more persons appointed by the Minister of Munitions, and for regulating the procedure on such appeals.”

But this clause was strongly criticised,⁵ both on the Second Reading and in Committee, on the grounds (1) that to give a Minister the right of appointing judges would be a most dangerous precedent; (2) that the setting up of a new Tribunal would involve considerable and unnecessary expense. The right course, it was urged, would be for

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2468-2470.

² M.W. 58604.

³ M.W. 58604, 2.

⁴ M.W. 58604 62.

⁵ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2163-5, 2473.

the Lord Chief Justice to select a Judge of the High Court, who would sit with assessors, when and where it was necessary. It was also urged that appeals should not be confined merely to questions of law. Mr. Lloyd George, accordingly, withdrew the obnoxious clause and undertook to reconsider the matter before the Report stage.

It was ultimately enacted that the Appeal Tribunal in England should be a Judge of the High Court selected by the Lord Chancellor, in Scotland a Judge of the Court of Session selected by the Lord President of the Court of Session, and in Ireland a Judge of the High Court selected by the Lord Chancellor of Ireland. It was provided that an appeal might be made on any ground which involved a question of law or a question of mixed law and fact. Thus a much wider latitude in appeal was given, and where necessary a re-trial and re-hearing of evidence might be ordered. To reduce expenditure and increase speed, it was provided that cases might be heard and determined in a summary manner and rules might be made for the remission or reduction of any fees. It was also made clear that the decision of the Judge should be binding on all Munitions Tribunals.

THE ABOLITION OF IMPRISONMENT FOR MUNITIONS OFFENCES.

Section 13, which abolished imprisonment for the refusal or failure to pay the fines imposed by a General Munitions Tribunal, also had a somewhat chequered career. It first appeared¹ in the fifth draft of the Bill on 25 November. But the clause was cut out before the next draft, being opposed by the Admiralty² and the employers.³ On the Second Reading, however, Mr. Wilkie pressed for the abolition of imprisonment, and cited in support the recommendation of the Clyde Commission.⁴ In Committee Mr. Goldstone moved an amendment to effect this purpose; but it was resisted by Mr. Lloyd George, who said⁵: "If it were a question of inflicting imprisonment as a punishment, I should agree with my hon. Friend, but as it is only a question of imprisonment for non-payment of fines it is in a totally different category. . . . Under the circumstances, especially having regard to what happened on the Clyde, it would be an act of weakness on the part of the Government which might be misinterpreted to accept the Amendment."

Mr. Pringle replied⁶ by urging the inexpediency of allowing people to go to gaol of their own free will.

"If they do, they are going to make far more trouble for the Government than inflict injury upon themselves. These men on the Clyde, as a matter of fact, were made martyrs, and any man who is unjustly punished under this Act will go to prison in the future, just as these men did, because he will believe that he is thereby doing as much injury as possible to the people who have wrongly treated him. In addition to that, there are prospects of reward when their

¹ M.W. 58604/26.

² M.W. 58604/95.

³ M.W. 58604.

⁴ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2105.

⁵ *Ibid.*, 2497.

⁶ *Ibid.*, 2498.

finer are finally paid, and they come out. The men on the Clyde who went to prison have had public presentations as the result of it. They were not victims; they were presented with £8 apiece and with diamond bracelets for their wives, and had gold watches offered to them. You do not want to cause these public testimonials to be presented to people whom you wish the community to believe to have been justly punished; you are bringing your Act into disrepute if you do that. . . . It is extremely important for the administration of the law that public sentiment should be behind your tribunal."

On Report Mr. Pringle again brought forward the clause,¹ which, by reading subsection (4) of section 15 of the principal Act as if the words "of the second class" were struck out, gave General Munitions Tribunals the power of ordering the payment of fines by deductions from wages, and took away from them the power of imprisonment in default. In the meantime Mr. Lloyd George had decided to accept the amendment in view of Lord Balfour's Report.²

Two other sections of the Act may be noted here, since they concern Munitions Tribunals. Section 22 (1) gave a Munitions Tribunal power, where the proceedings appeared to it to be vexatious or frivolous, to award costs to the person against whom the complaint was made, "and the costs so awarded shall, unless good cause to the contrary appears, include such sum as compensation for the expenses, trouble, and loss of time incurred in or incidental to the attendance of the person against whom the complaint is made before the tribunal as to the tribunal may seem just and reasonable." The Trade Unions had asked that such compensation should be paid whenever a workman was found not guilty. But such an extension of the section would have been dangerous, since it would have deterred employers from taking proceedings in cases where they ought to be taken.

Section 26, by repealing the words "Part I. of" in Section 20 (2) of the principal Act, provided for keeping alive for a year after the conclusion of the War the Munitions Tribunals, by which alone the employer's undertaking in respect of the Second Schedule of the Act could be enforced. The Legal section of the Ministry had suggested such a provision when the drafting of the amending Bill was first taken into consideration.³ But it was thought better at the time to defer the question for "a general sweeping up Bill at the end of the War."⁴ On Report, however, Mr. Roch moved a new clause providing that the Second Schedule should be enforceable by civil action.⁵ He said that the workmen, both on the Clyde and elsewhere, feared that after the War the customs and rules which they had relaxed would not be restored, and he pointed out that although the principal Act provided for arbitration for a year after the War on any difference that might arise concerning the restoration of such rules and customs, there would be no means of enforcing the award, if by that time the

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 877.

² M.W. 58604/95.

³ M.W. 58604.

⁴ M.W. 58604/2.

⁵ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 886.

Ministry of Munitions had ceased to exist. Mr. Lloyd George admitted that he did not exactly understand the point at issue, but undertook to consider it and remedy the defect if it existed. The necessary amendment was accordingly made by the House of Lords.¹

V. Defence of the Realm Act, Regulation against Incitement to Strike.

To make provision for punishing incitement to strike was one of the original motives of the Amending Bill. Recent events had proved the need of such a power. But incitement to strike had not been made an offence under the principal Act in view of the opposition of a section of the Labour Party; and the Law Officers had advised² that it was not indictable as a conspiracy, and that it was not certain that such a proceeding was indictable as a misdemeanour under the Aiders and Abettors Act, 1861. They also advised that it was not an offence against the Regulations made under the Defence of the Realm Acts. Accordingly the following clause was proposed:—

“If any person attempts to commit, or procures or attempts to procure, or aids or abets the commission of any act which is an offence under the principal Act, he shall be guilty of an offence under the principal Act.”

This clause, however, was struck out on 5 November, since it was felt to be “a violently contentious measure.” The difficulty could be met by an amendment of the Defence of the Realm Regulations; but such an amendment could not be introduced if the clause was produced in the Bill and the Government were compelled to withdraw it.³

On 30 November, 1915, therefore, Regulation 42 was amended by the addition of the words in italics,⁴ so as to run as follows:—

“If any person attempts to cause mutiny, sedition or disaffection among any of His Majesty’s Forces or among the civilian population, *or to impede, delay or restrict the production, repair or transport of war material or any other work necessary for the successful prosecution of the war*, he shall be guilty of an offence against these Regulations.”

In the debate on Clause 13 abolishing imprisonment it was suggested that by this Regulation the Government had taken much more drastic powers against strikers and other offenders against the Act than it was surrendering by accepting the new clause. Mr. Lloyd George replied by giving the following pledge⁵:—

“It is not intended to deal with the individual workman for an ordinary offence under those regulations, which are intended to deal with the man who deliberately goes about

¹ *Parliamentary Debates* (1916), *H. of L.*, XX., 918. M.W. 58604/131.

² *HIST. REC.*/H/348/1.

³ M.W. 58604/2.

⁴ M.W. 58604/3.

⁵ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 881. M.W. 58604/113.

with the intention and in order to interfere with the output of munitions, and that man comes in a different category altogether. That is the kind of man, amongst others, at whom the Privy Council Order was certainly aimed. I will confer with those who drafted the Order and see whether it is necessary to restrict the words in order to make it impossible for us after the acceptance of the Amendment by other means and by what I would not hesitate to call an underhanded way not only retaining the power but increasing and aggravating it."

VI. Section 2. Amendment of the Procedure for referring Differences to Arbitration.

The representatives of Labour were very anxious that the procedure for the settlement of disputes under Part I. of the principal Act should be accelerated. They complained¹ that the Board of Trade sometimes refused to refer to arbitration differences which had been reported to it, and frequently delayed such reference by protracted negotiations with the various parties concerned, while the Committee on Production was so overworked that its awards were seriously in arrear. Mr. Duncan stated that the Workers' Union had 40 cases waiting to go before the Arbitration Tribunal. Such delay made the work of the Trade Union leaders very difficult and diminished their authority, already undermined by the suspension of the right to strike.

In Committee, accordingly, Mr. Anderson proposed a new clause on behalf of the Labour Party.²

"Any difference existing or apprehended between any employer and persons employed which has been reported to the Board of Trade by or on behalf of either party to the difference shall be referred for settlement in accordance with Section 1 of the principal Act, if a request to such effect is received from either party to the difference, and such difference shall be referred for settlement within 7 days from such application, and the award shall be published within 21 days from the date of such reference."

Mr. Lloyd George said³ that he had a good deal of sympathy with the proposal. But the Board of Trade told him that differences were manufactured by small sections of the workpeople, anxious to give trouble, who threatened the interests of the Trade Unions just as much as those of the employers. However, he promised to consider the matter further and to move an amendment with a view to speeding-up any case where the Board of Trade decided that the difference was *bona fide*. Accordingly, on Report a new clause was added,

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVI., 2133-2498. LXXVII., 827-829.

² *Ibid.*, LXXVI., 2498.

³ *Ibid.*, 2500.

requiring the Board of Trade to refer to arbitration within 21 days any *bona fide* difference which it had failed to settle in the interval.¹

Section 21 provided that an officer of the Board of Trade need not attend before a Munitions Tribunal in order to prove that a difference had been reported to the Board.

VII. Miscellaneous Amendments.

The remaining sections of the Act may be briefly considered.

Section 1 gave the Minister power to declare by Order any establishment, belonging to or under the control of His Majesty or any Government Department, in which munitions work was carried on, to be a controlled establishment.² Control was desired in order to secure the application of those provisions of Section 4 of the principal Act which removed Trade Union restrictions and which gave the power to bring disciplinary offences before a Munitions Tribunal, together with the provisions of the Second Schedule.³

Section 3 provided (a) that if an employer without reasonable cause dismissed a workman who had enrolled as a War Munitions Volunteer within six weeks from the date of the man's signing his undertaking, the employer should be guilty of an offence under the principal Act; (b) that an undertaking signed by a workman to become a War Munitions Volunteer should override any existing contract; (c) that the provisions relating to War Munitions Volunteers should apply to workmen who had signed an undertaking before the original Act came into force.

Section 4 penalised an employer who employed otherwise than in accordance with his undertaking a person released from naval or military service or a War Munitions Volunteer. Its purpose was to secure that such men should not be employed except on munitions work. Although the employer signed an undertaking to this effect it was doubtful whether a breach of this undertaking would have been an offence without such a provision.

The origin and growth of Sections 6, 7 and 8 have been described elsewhere.⁴ They authorised the Minister¹ to give directions by Order

¹ *Parliamentary Debates* (1916), LXXVII., 833.

² See p. 67.

³ Accordingly, in the Order those provisions which related to the limitation of profits, the consent of the Minister as to changes in wages or salaries, and the penalties for not observing the provisions of the Second Schedule, were excluded as inapplicable or superfluous. "The provisions in paragraph (1) and, except so far as they relate to contractors and sub-contractors employing labour in the establishment, the provisions in paragraph (2) of Section 4 and in Section 5 of the Munitions of War Act, 1915, shall not apply. So much of Section 4 of the said Act as makes non-compliance with any provisions thereof an offence upon the part of the owner of an establishment or an employer shall not apply; but nothing in this exception shall be construed as relieving the persons by whom the establishments mentioned in the first schedule to this Order are managed and carried on from complying with those provisions." M.W. 92330.

⁴ See Vol. IV., Part I., Chap. IV., Sections X. and XI.

concerning the wages, hours of labour and conditions of employment (a) of women employed on munitions work in establishments subject to the provisions of Section 7 of the principal Act, and (b) of certain classes of semi-skilled and unskilled men employed in controlled establishments, and (2) to constitute special arbitration tribunals (a) to deal with differences relating to the matters mentioned above, and (b) to advise the Minister on questions referred to them concerning such matters.

Section 10 provided that the power of making an Order applying Section 7 of the principal Act should rest with the Minister of Munitions and not with the Admiralty.

Section 11 provided that the consent of the Minister should not be required to an increment of salary accruing in a controlled establishment under an agreement made prior to the date of control.¹

Section 14 extended the offence of making false statements and furnishing false information. It was found in practice that Section 12 of the principal Act, which related only to false statements for the purpose of evading any provision of the Act, was inadequate. It was difficult to bring under this head a false statement for the purpose of obtaining employment or of retaining a man in employment. This defect was now remedied. At the same time the offence was removed from the munitions tribunals to the ordinary courts of law.

Section 15 provided that if non-union labour was introduced into a controlled establishment, in which it was the practice prior to the War to employ union labour exclusively, the owner should be obliged to restore the pre-war practice at the end of the War, but such introduction should not otherwise be regarded as a change of working conditions. The object of the last clause was to avoid the necessity of giving notice to the workmen and opportunity for local consultation, before a non-unionist, *e.g.* a released soldier, could start work,² however urgently he might be needed.

Section 16 authorised the Minister to require "from the owner of any establishment in which persons are employed" information concerning "the cost of production of the articles produced or dealt with in the establishment, and the cost of the materials used for such production, and the names and addresses of the persons by whom such materials were supplied or who are under contract to supply them." The bearing of this important section on the financial policy of the Ministry is discussed elsewhere.³

Section 17 gave general power to enable inspectors appointed by the Ministry to carry out their duties. It followed precedent, *e.g.* Section 119 of the Factory and Workshop Act, 1901, and Section 112 of the National Insurance Act, 1911.

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 884.

² *Parliamentary Debates*, *H. of C.*, LXXVI., 2495, LXXVII., 881, 920.

³ See Vol. III.

Section 19 corrected an error¹ in the principal Act, and made it clear that the Minister could fix a standard in the case of a new business in which there were no profits for the two financial years before the outbreak of war and consequently no standard period.²

Section 20 provided that the Minister might make arrangements with any other Government Department for the exercise of any of his powers and duties. Its chief object was to enable the Ministry as a temporary Department to make use of the regular Government Departments for purposes for which they were specially adapted. Similar provisions occurred in the Census of Production Act, 1906, and the Articles of Commerce (Returns, etc.) Act, 1914.

Section 23, by excluding the Arbitration Act, 1889, made it clear that there was no appeal from the decisions of Boards of Referees appointed to enquire into limitation of profits cases under Section 5 of the principal Act.

Section 24 provided for the revocation of orders *ab initio*, and was intended to cover cases where establishments had been declared controlled under a misapprehension, and to prevent all the trouble which would ensue from erroneous control for a short period of time.

Section 25 enabled rules and regulations made by the Minister to come into force at once. Previously it was necessary to certify the rules as emergency rules; they then came into force provisionally, and had to be made and printed again at the expiry of the provisional period. Since all the rules made by the Minister were emergency rules, this duplication was unnecessary and uneconomical.

VIII. Amendment of the Munitions (Ordering of Work) Regulations.

It remains to consider one subject on which the demands of the Trade Unions, though not satisfied by the Bill, were met by the issue of new Regulations. They asked that no change in workshop regulations should be made, and no rule other than the model rules framed by the Minister should be posted or enforced by employers, unless they had been agreed to by the workmen. Moreover, Mr. Pringle moved an amendment that no person should be subjected to any penalty under the Munitions of War Acts for refusing to work on Sunday.³ He pointed out that the Health of Munitions Workers Committee had recently come unanimously to the conclusion that Sunday labour should be restricted within the smallest

¹ By substituting "third" for "fourth" in paragraph 9 of the Second Schedule.

² *Parliamentary Debates* (1916), *H. of L.*, XX., 918.

³ *Parliamentary Debates* (1916), *H. of C.*, LXXV11., 866.

limits possible. Dr. Addison replied¹ that Sunday work could not be abandoned. It was essential for repairs and other operations; for example, continuous processes in chemical works and blast furnaces. He thought the question might safely be left to the discretion of the Munitions Tribunals. In response, however, to pressure from various quarters of the House, he promised at last that the Ministry should make regulations under which prosecutions for refusing to work on Sunday would not be possible.²

Accordingly, on 18 February, 1916, the Minister revoked the Regulations made on 14 July, 1915, and substituted the following³ :—

“(1) The owner of any Controlled Establishment shall, as soon as practicable, post Rules relating to Order, Discipline, Time-keeping, and Efficiency conspicuously in his establishment so as to bring them effectively to the knowledge of workmen employed therein.

(2) Such Rules shall be in the form set out in the Schedule hereto or such other form as may be approved by the Minister, and shall be so posted as to be entirely separate and clearly distinguishable from any other rules or notices in the establishment.

(3) Every person employed in the establishment shall comply with any Rule so posted, and any person so employed who acts in contravention of, or fails to comply with, any such Rules shall be guilty of an offence under the Munitions of War Act, 1915.

Provided that no proceedings shall be taken under the Rules so posted in respect of a refusal to work on Sunday.

(4) No proceedings shall be taken before a Munitions Tribunal in respect of breaches of rules other than of the Rules made and posted in accordance with these Regulations, and any such other Rules shall be so worded and entitled as to avoid all possibility of confusion with the Rules made under these Regulations.

(5) Any person who acts in contravention of, or fails to comply with any of these Regulations shall be guilty of an offence under the Munitions of War Act, 1915, and shall be liable to a fine not exceeding £3 in respect of each such offence.”

The Schedule contained the Model Rules as approved on 18 August, 1915,⁴ except for the omission of the words “including week-end work” from Rule 2, and the addition of a paragraph providing that “The above are the only Rules of the Establishment in respect of which proceedings may be taken before a Munitions Tribunal.”

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 867.

² *Ibid.*, 872.

³ M.W. 29515/5. Statutory Rules and Orders, 1916, No. 106.

⁴ See Chap. I., Section IX.

IX. The further application of the provisions as to Leaving Certificates.

The extension of the definition of munitions work was intended primarily by the departments and interests which pressed for the several additions to make possible a corresponding extension in the scope of the leaving certificate. Accordingly, as soon as the Bill was passed, a new Order was prepared,¹ extending the provisions of Section 7 of the principal Act as amended by the new Act to "any establishment a substantial part of the business carried on in which" consisted in munitions work, as defined by Section 9 (1) of the new Act. Mr. Lloyd George, however, declined to make any new Order. It is understood that he expressed the view that the leaving certificate provisions should be confined to controlled establishments.² In the debates on the amending Bill he certainly assumed³ that the restriction of the workman's liberty of movement answered to the control of profits and compulsion for the workman was the counterpart of compulsion for his employer. Consequently, the new definition of munitions work did not affect the scope of the leaving certificate, except in so far as it admitted a wider interpretation of the Order of 14 July, 1915.⁴

The Minister's decision not to issue a new Order involved several difficulties. The Admiralty were very anxious that the leaving certificate provisions should be applied without delay to the workmen employed on the maintenance and repair of docks and harbours.⁵ But although the Admiralty could certify such work as munitions work, under Section 10 of the Amendment Act only the Minister of Munitions could make an Order applying Section 7 of the principal Act to any dock. The Admiralty had indeed been assured that this provision was a mere formality, but the Minister's decision made it difficult to accede to their request. The undertakings to which the Admiralty

¹ M.W. 89804/2. 74735/15.

² *Hist. Rec.*/H/348/1, p. 35.

³ *Parliamentary Debates* (1915). *H. of C.*, LXXXVI. 2119, LXXXVII. 850, 854. On Mr. Pringle's motion to repeal Section 7 of the principal Act, Mr. Lloyd George said in reply:—"My hon. Friend must remember that not merely labour but the employer is concerned in the Munitions Act. The whole of his works are under control. He can only turn out the work which has been allotted to him. His prices are under control, his profits are under control, and he has to submit his books. That is part of the Munitions Act. Would my hon. Friend wish to abolish all that? He talks about a one-sided arrangement, the suggestion being that it is a sort of arrangement by which you restrict labour and do not interfere with the employer—not in the same way, it is perfectly true, because you do not restrict the employer in the same direction. It is a different operation, but you restrict his profits, you restrict what he can do in his works, and you restrict his control. It is not a one-sided restriction. It is a restriction which is different in character because it is necessary that it should be . . . Is it asking too much that when the success of the Government in turning out munitions of war depends upon our being enabled to organise the workshops which are under our control, and which are practically therefore Government workshops, and organising them so that there shall not be constant shifting from one to another—which would mean the utter impossibility of getting continuity of labour—is it too much to ask these men to submit themselves to this restriction?"

⁴ See p. 17.

⁵ M.W. 73590/3. Minute by Admiral Moggridge of 22 February, 1916, and Admiralty letters dated 7 March and 18 April, 1916.

desired to apply Section 7 were not, in the opinion of the Ministry, of a class which could properly be controlled. "At the same time, the Minister feels considerable hesitation in extending the Order to establishments which have not been controlled." On 3 May, however, it was agreed¹ that if the Admiralty took the view that Section 7 should be applied to such establishments, the Minister would be prepared to delegate his powers under Section 20 so far as such classes of establishment were concerned, provided that the Law Officers of the Crown held that the partial delegation of any specific powers of the Minister was possible. Accordingly, the Law Officers having given a favourable opinion, the Admiralty made an Order on 1 July, 1916, applying the provisions of Section 7 to "any establishment engaged in the construction, alteration, repair or maintenance of docks and harbours and work in estuaries."²

In the meantime a curious difficulty had arisen. On 24 February an Order was made under Section 6 of the Amendment Act directing certain establishments to observe the directions regarding women's wages, commonly known as L.2.³ After reciting Section 6, the Order proceeded as follows:—

"And whereas the establishments named in the 2nd Schedule hereto are establishments of a class to which the provisions of Section 7 of the principal Act, as amended by the Munitions of War (Amendment) Act, 1916, are for the time being applied by an order made thereunder, Now, therefore, in pursuance of the above-mentioned powers, the Minister of Munitions hereby orders and directs that the directions contained in the 1st Schedule hereto regarding the wages of female workers employed on or in connection with munitions work shall take effect and be binding upon the owners of the establishments named in the 2nd Schedule hereto and any contractor or subcontractor employing labour in any such establishment and the female workers to whom the directions relate as from February 28th, 1916."

The 2nd Schedule, referred to above, included by some oversight the names of nearly all the establishments declared controlled down to the end of January, 1916, and the owners of these establishments were notified individually that Section 7 applied to them. But to many of these establishments Section 7 certainly did not apply—where, for example, business consisted wholly or mainly in the manufacture of rubber goods, pottery, brick and fireclay, optical glass, leather goods, rope or white lead. If the difficulty had ended there, a remedy might have been found in excising from the Schedule the names of all such establishments. But even if this had been done, there would still have remained upon the Schedule a very large number of establishments, with regard to which the Ministry could not determine

¹ M.W. 73590/3. Ministry of Munitions letter dated 3 May, 1916.

² *Statutory Rules and Orders*, 1916, No. 450.

³ M.W. 99726/2. Cf. *Statutory Rules and Orders*, 1916, No. 411. See Vol. IV., Part I., Chap. IV., Section XII.

whether in fact Section 7 did or did not apply. The question could be properly determined only by the decision of a Munitions Tribunal or the Court of Appeal. As Mr. Garrod wrote¹ on 28 March, "We are no more in a position to unsay what has been said—and it may be true—than we were entitled to say it at all. An amended Order under Section 7, including within its scope all controlled establishments seems the only way out of the *impasse*." This course was consequently decided on.

In the meantime, on 6 March, Sir F. W. Black had urged strongly the importance of applying Section 7 to the Electric Power Stations.² At first it was thought that the Board of Trade should deal with the matter under powers delegated for the purpose under Section 20 of the Amendment Act. But on 4 April Dr. Addison wrote that he had discussed the question with Mr. Lloyd George, who considered that where the Ministry was principally concerned in the supply of light and power, it might issue the Order, but otherwise the matter belonged to the Board of Trade. It was felt that such action would not conflict with the policy of applying Section 7 to controlled establishments, inasmuch as electricity was supplied either by public bodies or by companies whose profits were limited by law or agreement.

On 1 May, 1916, therefore, a new Order was made applying Section 7 of the principal Act, as amended by Section 5 of the Amendment Act, to the following classes of establishments in addition to the class specified in the Order of 14 July, 1915:—" (1) Any establishment supplying electrical light or power in cases where the Minister of Munitions certifies that such supply is of importance for the purpose of carrying on munitions work ; (2) Any establishment which has been or may hereafter be declared to be a controlled establishment by an Order of the Minister made either in pursuance of Section 4 of the Munitions of War Act, 1915, or of Section 1 of the Munitions of War (Amendment) Act, 1916."³

¹ M.W. 99726/2.

² M.W. 99726/5.

³ M.W. 99726. No further Order was made while Mr. Lloyd George remained Minister of Munitions. But subsequently the scope of Section 7 was considerably extended by the following additions:—

(1) Any establishment supplying light, heat, or power generated by gas—(a) in cases where the Minister certifies that such supply is of importance for the purpose of carrying on munitions work ; and (b) in cases where such establishment is substantially engaged upon the production of materials required for, or for use in, the manufacture of explosives. (25 July, 1916. S.R.O. 1916, No. 512)

(2) Any establishment belonging to or in the possession or under the control of His Majesty or any Government Department which is used for housing or storing ammunition or explosives or the materials required for their manufacture. (6 September, 1916. S.R.O. 1916, No. 615.)

(3) (a) Any establishment, being a barracks or huttet camp, so far as concerns the construction, alteration or repair thereof, or the supply of light, heat, water or power for the purpose of such construction, alteration, repair or supply ; (b) any establishment, the work of which consists in whole or in part of such construction alteration, repair, or supply as aforesaid ; in any case in which any such work is executed under the

X. Conclusion.

The principal difficulties involved in the regulation of labour under the Munitions of War Act have now been surveyed. An attempt has been made to show how these difficulties arose, to what actions they led, and by what remedies they were mitigated, if not removed. Looking backwards, the reader may at times incline to think that with more consideration some of the difficulties might have been avoided at the outset. But the extreme pressure under which the changes were made and the magnitude of the revolution effected ought not to be forgotten. There was no time to work out the consequences, even if the novel conditions had been fully comprehended. And as soon as the nature of the workmen's grievances was understood, the Government made a sincere effort to remove them, in so far as the necessities of the War admitted of a remedy. As Mr. Lloyd George said,¹ "The mere fact that we have taken the trouble to pilot this Bill through the House when the pressure of other work is enormous is a proof that we are doing our best to meet every grievance Labour complains of in the munition factories."

The analysis of the causes of unrest has occupied a large part of this story, and may have distorted the perspective of the whole. If that is so, no better corrective can be found than Mr. Lloyd George's last words on the Amending Bill in the House of Commons.

direction of the Royal Engineers or the Director of Barrack Construction (16 October, 1916.)

(4) Any establishment supplying water in cases where the Minister of Munitions certifies that such supply is of importance for the purpose of carrying on munitions work. (7 November, 1916. S.R.O. 1916, No. 791.)

(5) Any establishment manufacturing firebrick or silica brick. (23 November, 1916. S.R.O. 1916, No. 813.)

(6) Any establishment manufacturing lime. (4 December, 1916. S.R.O. 1916, No. 856.)

(7) Any establishment (whether belonging to the Road Board or to any other person, corporation, or body) which is engaged under the control, direction or supervision of the Road Board in the construction, alteration or repair of roads for purposes connected with the present war. (16 December, 1916. S.R.O. 1916, No. 890.)

(8) Any establishment supplying tramways facilities in cases where the Minister of Munitions certifies that such supply is of importance for the purpose of carrying on munitions work. (19 February, 1917. S.R.O. 1917, No. 180.)

(9) Any establishment being a factory or workshop, manufacturing one or more of the following materials or substances, that is to say, Motor Spirit, Naphtha, Paraffin Burning Oil, Lubricating Oil, Gas intermediate and Fuel Oil or Paraffin Wax. (2 April, 1917. S.R.O. 1917, No. 348.)

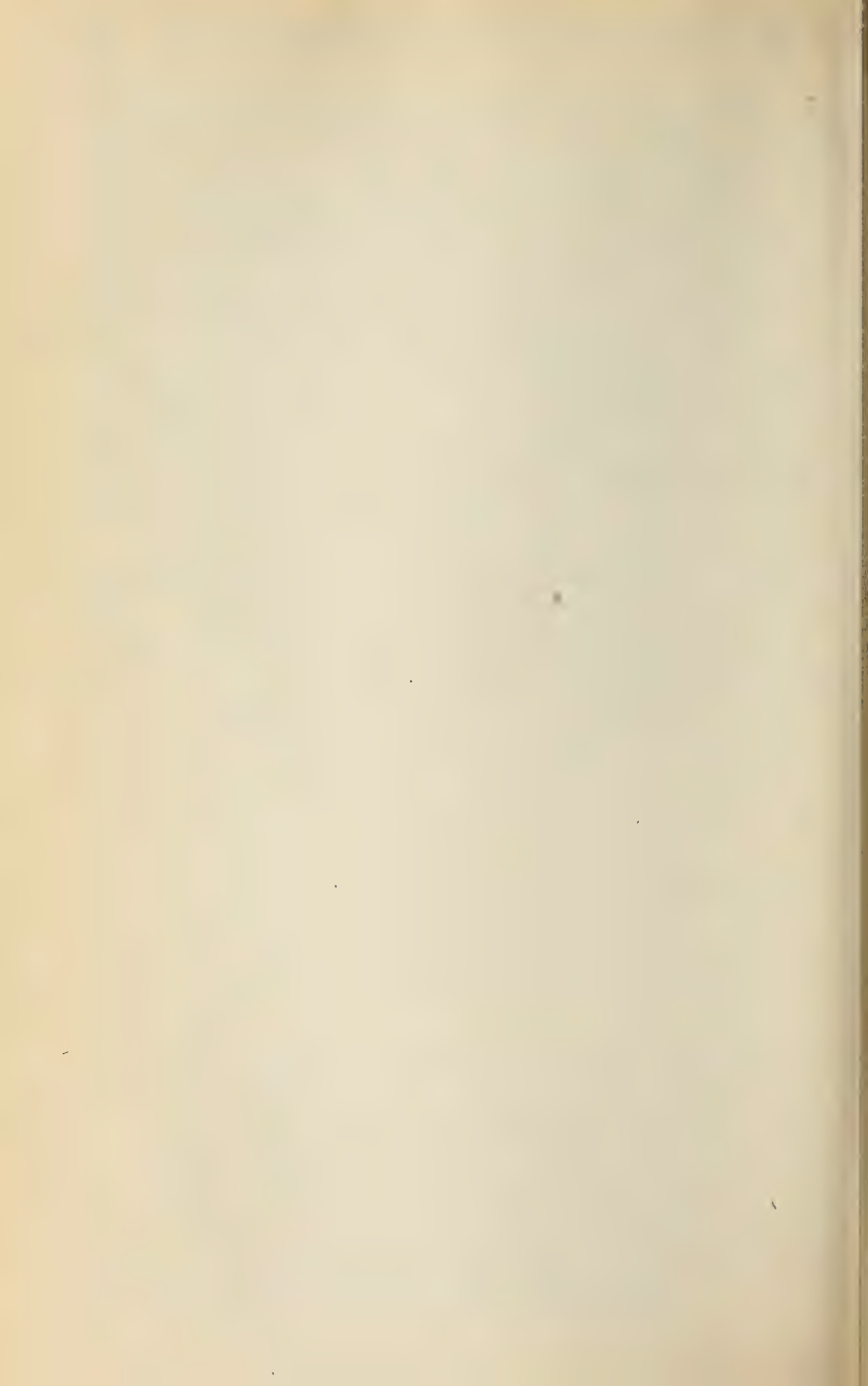
(10) Any proving or testing establishment at London, Bristol, Tipton, Netherton, Saltney, Monkwearmouth, Sunderland and Low Walker, or elsewhere, belonging to or under the control or management of the committee of Lloyd's register of British and foreign shipping licensed under the Anchors and Chain Cables Act, 1899. (16 April, 1917. S.R.O. 1917, No. 389.)

Orders (3) and (7) were made respectively by the Army Council and the Road Board under powers delegated by the Minister under Section 20 of the Amendment Act.

¹ *Parliamentary Debates* (1916) *H. of C.*, LXXVII., 929.

“ Whatever my hon. Friends may say to the contrary, I believe there is a time coming when the Munitions Act and the Defence of the Realm Act will be regarded as tremendous leaps forward in the social and industrial world. The power which I took to take control of the workshops and to regulate what work should be done, the power to organise our industrial system, the power to limit profits, and the two clauses in this particular Bill to declare a minimum wage in over 2,200 controlled establishments, with 1,250,000 and very soon 1,500,000 workers, and to see that there shall be no sweating—I repeat to my hon. Friend that all these things will be regarded one day, in spite of two or three things which may be considered as blemishes in the Act, as landmarks in a great industrial revolution. Things have been done under the Munitions Act which it would have taken a generation for either Labour or Parliament to have achieved under peace conditions, and the man who will then stand up and say, ‘ I opposed the Munitions Act : I was against it,’ will, I think, be scarcer than he is to-day. I ask my hon. Friends to look at this Act as a whole, and not to concentrate upon and talk about certificates and Clause 7. That is an unfortunate necessity in a time of war, which my hon. Friend himself recognised when he said that you must impose some restraint in a time of war. That is only one part. It is one of the conditions which has enabled us to get concessions for the working classes of this country which appear in an Act of Parliament, and contain principles which they themselves can develop, and which, if they are wise, they will insist upon being adhered to by the State.”¹

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII., 929.



APPENDICES



APPENDIX I.

(CHAPTER I., pp. 26-31.)

Model Rules framed by the Engineering Employers' Federation for the use of Federated Firms.¹

MUNITIONS OF WAR ACT, 1915, CONTROLLED ESTABLISHMENTS.

WORKS RULES

MADE APPLICABLE TO THIS ESTABLISHMENT BY THE
MUNITIONS (ORDERING OF WORK) REGULATIONS, 1915, AS FOLLOWS:—

(1) The owner of any controlled establishment shall, as soon as practicable, post rules relating to order, discipline, time-keeping, and efficiency conspicuously in his establishment so as to bring them effectively to the knowledge of workmen employed therein. Copies of rules so posted shall be sent to the Minister of Munitions.

(2) Every person employed in the establishment shall comply with any rule so posted; provided that no person shall be liable to a penalty under the Act for failing or refusing to comply with any rule, if the Munitions Tribunal is satisfied that the rule is an unreasonable one, or that the person had just cause for his failure or refusal to comply with it.

1. *Working Hours and Meal Times.*

(a) *Two Shifts* (male and female persons employed).

(i) **DAY SHIFT.** The working hours will be from—

Monday 6 a.m. to 8.30 a.m.

to 9 a.m. to 12.30 p.m.

Friday 1.30 p.m. to 5 p.m.

Saturday 6 a.m. to 8.30 a.m.

9 a.m. to 12 noon.

(ii) **NIGHT SHIFT.** The working hours will be from—

5 p.m. to 8.20 p.m.

9.20 p.m. to 1.30 a.m.

2 a.m. to 6 a.m.

¹ M.W. 36921.

(b) *Three Shifts :—*

(i) Males.

The first shift will commence on Monday at 6 o'clock and work until 2 p.m., the second shift from 2 p.m. to 10 p.m., and the third shift from 10 p.m. to 6 a.m.

Repeat each day until 6 o'clock Friday morning, the first shift working on Saturday from 6 a.m. to 2 p.m.

The intervening time between 2 p.m. on Saturday and 6 p.m. on Sunday is required for necessary repairs and adjustments.

The shift ceasing work at 10 o'clock on Friday night will resume work on Sunday at 6 p.m. and work a twelve-hour shift until 6 a.m. Monday. This to repeat itself once in three weeks, and so give each shift the same time for rest, and also the extra hours in this particular shift.

(ii) Females.

Times for starting and stopping work :—

1st Shift—6.30 a.m. to 2.30 p.m.

2nd Shift—2.30 p.m. to 10.30 p.m.

3rd Shift—10.30 p.m. to 6.30 a.m.

All to make 6 or 7 shifts per week.

Shifts to be changed as follows at week-ends :—

1st Shift—Finish on Sunday at 2.30 p.m.

Resume on Monday at 6.30 a.m.

2nd Shift—Finish on Sunday at 10.30 p.m.

Resume on Monday at 10.30 p.m.

3rd Shift—Finish on Monday at 6.30 a.m.

Resume on Monday at 2.30 p.m.

Employees to commence in the mornings at 6.30 or afternoons of alternate weeks, or at foreman's discretion.

Meals—to be taken at the following times :—

1st Shift, 9 to 9.30 a.m., an interval of 10 minutes for tea at 12.30 p.m.

2nd Shift, 5.30 to 6 p.m., an interval of 10 minutes for tea at 8.20 p.m.

3rd Shift, 2 to 2.30 a.m., an interval of 10 minutes for tea at 4.30 a.m.

2. *Overtime.*—Overtime, including week-end work, is to be worked when and to the extent required by the Company.

3. *Losing Time.*—All persons employed, whether on piece or time or otherwise, shall be regular in attendance at their work.

Persons losing $2\frac{1}{2}$ hours or less shall be liable to a fine not exceeding 6d. per hour.

Persons employed losing more than $2\frac{1}{2}$ hours, but not exceeding 5 hours per week, shall be liable to a fine not exceeding 1s. per hour for each hour or part of an hour so lost.

Persons employed losing more than 5 hours per week shall be liable to a prosecution under the Munitions of War Act, 1915.

All time lost shall be made up before overtime is reckoned.

Absence with leave or on account of sickness or other unavoidable cause—proved to the satisfaction of the Company—shall not be reckoned as time lost.

4. *Relaxation of Restrictions.*—Any rule, practice, or custom not having the force of law which tends to restrict production or employment is suspended in this establishment, and any person employed insisting on compliance with such a rule, practice, or custom shall be liable to prosecution under the Munitions of War Act, 1915.

5. *Piecework or Premium Bonus System.*—All persons employed shall work on piecework or the premium bonus system, as and when required by the Company, time rates in the case of piecework being guaranteed.

6. *Time Recording.*—All persons employed have a number allotted to them at starting and are required to take and return the time check bearing the number assigned in the following manner, viz. :—

Ordinary Day Shift.—Tickets must be procured at the time office previous to commencing at 6 a.m. and returned at the breakfast hour. Another ticket must be procured on resuming after breakfast and returned at the dinner hour, and a third procured on resuming after dinner and returned on ceasing work for the day.

Ordinary Night Shift.—Tickets must be procured at the time office previous to commencing at 5 p.m. and returned at the supper hour. Another ticket must be procured on resumption after supper and returned on ceasing work for the night.

Eight-Hour Shifts.—Tickets must be procured before starting work and returned on ceasing work.

Job Cards.—A card giving particulars of the job on which each person employed is engaged will be furnished, on which such person shall record the time worked, and return it to the time office on ceasing work.

7. *Payment of Wages.*—Wages will be calculated and paid as follows :—

DAY SHIFT.

Calculated to
Wednesday, 5 p.m.

Paid
Saturday, 12 noon.

NIGHT SHIFT.

Wednesday, 6 a.m.

Saturday, 6 a.m.

THREE SHIFTS.

6/6.30 o'clock shift :—

Wednesday, 2 p.m.

Saturday, 12 noon.

2/2.30 o'clock shift :—

Tuesday, 10 p.m.

Friday, 10 p.m.

10/10.30 o'clock shift :—

Wednesday, 6 a.m.

Saturday, 6 a.m.

A workman dismissed during the currency of a week will receive his wages at the time of his dismissal, unless he be dismissed for a breach of these rules. A workman leaving of his own accord during the currency of a week will receive his wages on the usual pay day.

Workmen are required to carefully count the wages paid to them before they leave the vicinity of the pay office, as any claim for short payment cannot be entertained when the wages have been accepted and carried away.

8. *Care of Tools, etc.*—All tools, portable machines, lamps, plant, etc., entrusted to any person employed shall be left clean and in good working order and returned undamaged to the store. Deductions will be made from wages equivalent in each case to the actual or estimated loss sustained by the Company.

9. *Bad or Negligent Work.* — Deductions will be made from wages for all bad, negligent, uncompleted, or untested work, or injury to any material or property. The amount of damage or payment enforced will be actual or estimated damage or loss sustained by the Company.

10. *Machines to be kept Clean.*—All persons employed shall keep their machines clean and properly lubricated, but no gearing or other moving parts are to be cleaned while the machine is in motion.

11. *Entering or Leaving the Works.*—All persons employed shall enter or leave the works by the authorised gates.

12. *Accidents.*—Certain persons are appointed to look after the machinery, tools, scaffolding and other appliances, and to see that these are kept in good and efficient condition ; but it is the duty of all persons employed requiring to use any such to satisfy themselves before using them that they are in an efficient state and sufficient for the purpose required. Should any defect be observed, it must be immediately notified to the Works' Manager.

13. *Commencing and Remaining at Work.*—Every person employed must be at his proper place ready to commence work immediately the bell ceases, and must continue at his work until it is finished or until further orders are given him, or until the usual signal for leaving off.

14. *Absence Without Leave.*—Any person employed absent from his work a whole day or night or shift without permission will not be at liberty to resume again without permission of his foreman.

15. *Account of Materials.*—All persons employed must, before taking or using any material, apply to the person whose duty it is to take account of such material, and give such person the name, the number of job, with full particulars, for which the material is intended.

16. *Lights.*—No person employed shall alter or damage any gas burner, candle, electric or any other lamp, or leave them burning when work has ceased, or use lights in places on board ships where prohibited by notice boards.

17. *Fires.*—All persons employed before using fires on the wood decks of vessels must see that the same are properly provided with fire stands, and on no account must inflammable material be allowed about the fires.

All reasonable precautions shall be taken by persons employed to prevent an outbreak of fire.

18. *Permit to Leave Works.*—Any person employed desiring to leave the works at any other than the recognised stopping times must obtain a written permission from a foreman, and this, together with his brass check, shall be handed to gatekeeper on leaving works.

19. *Bringing Meals into Works.*—Persons employed may, if they desire, arrange for their meals being brought to the works. Any person bringing meals shall come to the main gates of the Engine Department or Shipyard Department. Persons employed whose meals are so brought shall proceed to the main gates and receive their meals, and thereafter return the basket, etc., to the messenger at the gate.

No person bringing meals shall be allowed to enter the works.

20. No person employed shall commit any of the following offences :—

- (a) Registering another man's time.
- (b) Jobbing on own account prohibited.
- (c) Idling or sleeping in the works.
- (d) Loitering in the works or being away from shop or job without permission.
- (e) Breaking open any lock-fast place or opening or removing tools, etc., from another man's box, or drawer, or from a bench or machine without authority.

- (f) Smoking in the works.
- (g) Committing a nuisance in any part of the works.
- (h) Intoxication in or bringing intoxicating liquors into the works.
- (i) Annoying, molesting, or interfering with workpeople, clerks, or timekeepers.
- (j) Hindering or impeding the progress of any work.
- (k) Bringing any person into the works without permission.
- (l) Using waste, oil, or oakum otherwise than as directed or for the purposes for which same is given out.
- (m) Taking chips or any article whatever out of the works without the Manager's permission.
- (n) Gambling in the works.
- (o) Creating or taking part in any tumult or disturbance in the works, or using abusive language.
- (p) Refusing to obey any lawful order of Manager, foreman, or other superintendent.
- (q) Any act of dishonesty.
- (r) Removing shores, or stagings, from any vessel unless appointed for the purpose.

21. *Penalties for Breach of Rules.*—Unless otherwise specified, any person employed committing a breach of any of the foregoing rules shall be liable to:—

- (a) A fine of 2/6 for each offence, or
- (b) dismissal with forfeiture of wages, or
- (c) prosecution under the Munitions of War Act, 1915—maximum penalty £3.

(Provided that any fines imposed shall be handed over to Red Cross Fund or Benevolent or Charitable Institution.)

22. *Holidays.*—Unless otherwise notified, the following holidays shall be observed as works holidays:—Christmas Day, Boxing Day, Good Friday, Easter Monday, Whit Monday, and August Monday.

By Order.

.....

.....

APPENDIX II.

(CHAPTER II., p. 57.)

Clyde Munition Workers Enquiry.INTERIM REPORT REGARDING THE CASE OF THE IMPRISONED FAIRFIELD
SHIPWRIGHTS.

On investigation of the circumstances under which the strike of shipwrights occurred at the Fairfield Works on 26 August, 1915, as a result of which certain shipwrights were fined by a General Munitions Tribunal and three imprisoned for non-payment of the fines, we find as follows :—

1. On 26 August, 1915, two shipwrights were discharged by the firm for alleged inattention to work.

2. The firm maintained their right to insert on the clearance certificate to be granted to these men under the Munitions of War Act, 1915, words indicating that they had been discharged for "not attending to work."

3. There arose then a dispute of principle between the firm and the shipwrights generally in the Yard as to the right of the firm to add such words to a clearance certificate under this Act.

4. The firm thereupon agreed "under protest" to withdraw the words in question.

5. The men construed the withdrawal "under protest" of the words as an admission by the firm that the two dismissed shipwrights had been improperly dismissed and claimed their reinstatement.

6. The firm refused to reinstate the two dismissed shipwrights; thereupon the shipwrights in the Yard went on strike.

7. For going on strike certain of the shipwrights were prosecuted under the Act, and were fined by a General Munitions Tribunal. Three of the men were ultimately imprisoned for non-payment of the fines imposed on them.

8. The immediate release of the three imprisoned shipwrights is claimed as a matter of principle on the ground that the circumstances of the dispute at Fairfield in regard to the Clearance Certificates and the dismissal of the two shipwrights had not been submitted to full investigation and enquiry before the men were fined, and that, having regard to those circumstances, the fines and term of imprisonment were excessive and the machinery of the Act harsh in its application.

9. The action which the men took of going on strike was wrong and had the effect of preventing such full investigation and enquiry. To strike was contrary to the Act, and the only question for the General Munitions Tribunal was whether the men summoned before it had taken part in a strike contrary to the Act.

10. There was effective and efficient procedure specifically provided by the Act which, if it had been originally followed, would have secured the full investigation and enquiry for which the men now ask :—

Firstly : the two dismissed shipwrights need not have accepted a clearance certificate with the words objected to upon it if such certificate had been offered to them. They could and should have applied under the Act to a Munitions Tribunal for a clearance certificate in ordinary form.

Secondly : the dispute as to the circumstances and conditions affecting the dismissal of the two shipwrights could and should have been reported to the Board of Trade under the Act for full investigation and for settlement under the provisions of this Act.

11. We have no jurisdiction and under the circumstances we are unable to re-try the individual cases of the shipwrights who have been fined or imprisoned, or in discharge of the duty laid upon us to make any recommendation in respect of any of them, but we have been impressed by certain of the circumstances anterior to the strike which in our view called for a remedy, and we propose to make recommendation as to the form of clearance certificates under the Act and as to the avoidance and settlement in the future of disputes similar to those that occurred in the case of the shipwrights of Fairfield.

BALFOUR OF BURLEIGH.

LYNDEN MACASSEY.

21 October, 1915.

J. PATERSON,

Secretary to Commission.

APPENDIX III.

(CHAPTER II.)

Note on the Rent Strikes on the Clyde. November, 1915.

The analysis of the situation on the Clyde in the autumn of 1915 would be incomplete without some mention of the rent strikes. Early in that year the scarcity of houses began to make itself felt in Glasgow and the neighbouring towns.¹ By midsummer there was a famine in the industrial districts, the number of unlet dwelling-houses, including those which were uninhabitable, being less than 1 per cent. Building on a large scale was out of the question owing to the scarcity of labour, the cost of materials, and the advance in the rate of interest. The house owners, having practically a monopoly, began early in 1915 to demand an increase in rents. Keen apprehension was felt among the working classes lest the rise should become unbearable, if the law of supply and demand was allowed to operate unchecked. Many of the workmen no doubt were earning high wages; but large numbers were not. The Association of House Factors and Property Agents resolved that the rents of dependents of soldiers and sailors should not be increased during the period of the war. But others, less considerate, had served notices of a 10 per cent. advance on their tenants, including soldiers' wives, Belgian refugees, old age pensioners and recipients of outdoor relief.² Intense indignation had been aroused by the eviction of soldiers' families. The Socialist newspapers were not slow to take full advantage of such incidents. It cannot be doubted that this advance in rents together with the rise in the cost of living were among the main causes of the very irritable temper which the Munitions Act inflamed to a fever.

The Government were slow to deal with the matter. But on 18 October, 1915, the Secretary for Scotland appointed Lord Hunter and Professor W. R. Scott to enquire into the facts. Time prevented a systematic survey, but by careful sampling they obtained the following results, which were corroborated by the evidence of the tenants' representatives :—

No change since May, 1914.. . . .	41·4
Decrease since May, 1914	2·4
Increase of less than 5 per cent. since May, 1914	33·9
Increase of 5 to 10 per cent. since May, 1914	14·6
Increase above 10 per cent. since May, 1914	7·7

¹ M.W. 57434/3.

² *Ibid.* Motion on Housing by the Parish Council of Cambuslang. Cf. Forward, 29 May, 5 June 20 November, 1915.

All the houses sampled in the Govan and Fairfield wards came within the last category, the increases varying between 11·67 and 23·08 per cent.¹

The owners and factors who gave evidence claimed that an advance of 10 per cent. was reasonable, 5 per cent. on account of the increased cost of labour and materials for repairs, 5 per cent. on account of the rise in the rate of interest on bonds. The Committee considered the former claim excessive even on the supposition that the cost of repairs had increased 25 per cent. But the advance in the rate of interest was serious, since more than 90 per cent. of the house property in Glasgow was subject to bonds. When money was cheap, the bondholder expected 1 per cent. more than the current rate on Government stock. He was receiving 4 per cent. when the 3½ per cent. War Loan was raised; and when the 4½ per cent. loan was issued in 1915 he demanded 5 per cent. To leave the house-owner in the same position as before, it was necessary to raise the rent 4 or 5 per cent. for every advance of ½ per cent. in the rate of interest.² It was therefore impossible to prevent rents from rising, unless bondholders were prevented from calling up their money or raising the rate of interest.

The Committee also pointed out several minor difficulties, the chief of which was that the police rate in Glasgow was halved on houses rented at less than £10 a year. Consequently, very many houses were let at £9 19s. 0d. But an advance of 5 per cent. on these rates involved an increase of 24s. on the total amount of rent and rates payable. Except in two wards there had been no material increase in the rates, and in several there had been decreases. But although the City Assessor supplied each tenant with a leaflet showing the proportion of rates and rent in the payments made, the evidence proved that the great majority of the tenants had no clear conception of the rent or the rates they were paying.

In the meantime the Ministry had suggested at the beginning of October that a clause should be inserted in the Amending Bill prohibiting any increase in the rent of a weekly tenant who was a munition worker, except with the consent of a Munitions Tribunal.³ But it was decided⁴ on 5 November not to proceed with this proposal on the ground that the question of rent should be dealt with as a whole, and there was no special reason for giving exceptional privileges to munition workers in this respect. Moreover, it is evident that an increase in rents could not be successfully checked without prohibiting at the same time an increase in the rate of interest on mortgages.

¹ M.W. 57434/3.

² Normally, houses were valued at 15 years' purchase of the annual rental, and money was advanced on two-thirds of the valuation. An advance of ½ per cent. in the rate of interest, therefore, would involve an increase of £5 per annum in interest on property rented at £100 and valued at £1,500, on which £1,000 had been lent.

³ M.W. 58604

⁴ M.W. 58604/2.

Lord Hunter's report was received on 3 November, and on 17 November Mr. McKinnon Wood submitted a memorandum to the Cabinet, urging prompt action on the lines subsequently adopted by the Government.¹

On the same day an untoward incident occurred. In spite of the Secretary for Scotland's appeal to factors and house-owners to stay their hands, one landlord served summonses on 18 of his tenants, citing them to appear in the Sheriff's Court on 17 November, because they refused to pay the increase of rent he demanded.² Thereupon the men in six great works and shipyards went on strike after breakfast and declared their intention of attending at the Sheriff's Court.³

Demonstrations were held in various parts of the city, and resolutions passed, of which the following, sent by Mr. John Maclean to the Prime Minister, is typical: "That this meeting of Clyde munition workers requests the Government to definitely state, not later than Saturday first, that it forbids any increase of rent during the period of the war, and that this failing a general strike will be declared on Monday, 22 November."

On 18 November questions in the House of Commons elicited the fact that the Government hoped to introduce a Bill soon, and on 25 November a Bill was brought in, limiting the rents on small dwelling-houses and the interest on mortgages upon them to the level which obtained at the outbreak of war. The strike quickly died down, and by 23 November all the men had returned to work.⁴ Since this strike was not covered by the terms of the Munitions of War Act no prosecutions took place; and the action of the Government undoubtedly strengthened the belief in the minds of many of the men that concessions could be obtained by striking which it was not possible to secure in any other way.

¹ M.W. 57434/3.

² M.W. 57434/5.

³ Messrs. Barclay, Curle & Co., Fairfield, Coventry Ordnance Works Harland & Wolff, D. & W. Henderson, A. Stephen & Son.

⁴ M.W. 57434/5.

APPENDIX IV.

(CHAPTER II., pp. 64, 65.)

Clyde Munition Workers Enquiry.

REPORT.

TO THE RT. HON. D. LLOYD GEORGE,

Minister of Munitions.

SIR,

1. In pursuance of our appointment by you "to enquire into the causes and circumstances of the apprehended differences affecting munition workers in the Clyde district," qualified by the instruction that we were not to sit as a Court of Appeal from Munitions Tribunals, we have now held 12 meetings in Glasgow and heard a large number of witnesses on behalf of the munition workers, their employers, and the various Trade Unions concerned.

2. One important fact is disclosed by our inquiry so far as it has gone. While the munition workers have certain substantial matters of legitimate complaint, a considerable number of the differences brought before us were not so illustrative of disputes on definite matters of principle under the Munitions of War Act, 1915, between munition workers and employers generally as they were indicative of local friction surrounding the relationship of particular employers and employed, and attending the operation of the Act in the case of certain trades in the service of particular employers.

3. Whenever friction arises in a particular munitions establishment between an employer and his workmen, even although it seems to have no very tangible foundation and to involve no definite principle, but to be largely the outcome of indiscretion or inconsideration on one side or the other, it leads to a state of irritation among organised workers which quickly spreads beyond the boundaries of the establishment where the trouble first arose to other works, and frequently from adventitious causes wholly unconnected with the origin or merits of the dispute it becomes elevated into a question of principle affecting all employers and munition workers generally throughout the district.

4. To deal quickly with the trouble at its source is the only effective method of eradicating industrial differences, which are so apt to gather volume if left long uncontrolled. For these reasons we think it well at this stage in our inquiry without further delay to present to you a report on certain matters which, in particular cases, have contributed to the differences existing in the Clyde District. We

understand it is your intention shortly to introduce a Bill to amend the Munitions of War Act, 1915, and we desire that you should have our views and recommendations in regard to these matters.

5. With regard to the matters to which this report is confined we are in a position to make our recommendations at once. They were in the first instance brought before us by the Trade Union Officials who attended our inquiry in Glasgow. They were brought to the notice of the Employers affected, and we have heard their views upon them. Witnesses in regard to them have been examined and cross-examined at length, both on behalf of the Trade Unions and the Employers, and we are in possession of a large amount of information in regard to them.

CLEARANCE CERTIFICATES.

6. The first question is the important one of clearance certificates, and we state below in summarised form some conclusions to which we have so far come :—

- (a) It should be provided that no employer shall enter on a clearance certificate given to a dismissed workman the reasons for dismissal.
- (b) An employer should be bound to give a clearance certificate to a dismissed workman immediately on dismissal, unless the workman acted improperly so as to secure dismissal.
- (c) In cases where an employer has unreasonably refused any workman a clearance certificate, jurisdiction should be conferred upon Munitions Tribunals to award the workman reasonable compensation to be paid by the employer for any want of employment suffered by the workman in consequence of the repeal of the certificate. In such a case, if the employer offered the workmen continuance of his employment up to the time at which the case is heard by the Munitions Tribunal the latter should have regard to this fact in determining the amount of compensation (if any) to be paid to the workman.
- (d) In cases where a workman has unreasonably proceeded against an employer for a clearance certificate, the Munitions Tribunal should have power to award the employer reasonable costs.
- (e) Where application for a clearance certificate is made by a workman engaged on munitions work to enable him to proceed to other munitions work, the Munitions Tribunal should have regard to the question whether the continuance of the workman in his work, or his proceeding to his proposed work, is most in the interests of the country and award or refuse a certificate accordingly.
- (f) As hardship frequently results when a workman is unable to prove to the satisfaction of an intending munitions employer that he was not within the preceding six weeks

employed on munitions work, provision should be made for putting such a workman in possession of a certificate of previous non-munitions employment.

- (g) Where a skilled tradesman is temporarily employed in an unskilled capacity, as for instance as a labourer, he should be given a clearance certificate if he is desirous of resuming his own skilled tradesman's work with some employer other than the one in whose service he is engaged as a labourer.
- (h) Where a workman is employed in an establishment at such a distance from his home that he is obliged to lodge himself near the establishment, and, at the same time, maintain his home, he should receive his clearance certificate to enable him to take up munitions employment adjoining his own home in every case when he or his Trade Union are able and willing to provide an efficient substitute, and when no substitute is available, in every case when the Munitions Tribunal is of opinion a clearance certificate can be granted without serious detriment to Government work.
- (i) In case a workman claims discharge from any particular class of work on the strength of a medical certificate, the employer should, unless he disputes that certificate, give a clearance certificate. If the employer disputes the medical certificate, the matter should be immediately referred to some standing medical referee nominated for that purpose in the district by the Ministry of Munitions, on whose decision the employer should act. If, on the decision of such referee a clearance certificate is refused, the workman should still be free to institute proceedings before a Munitions Tribunal for a clearance certificate.
- (j) In cases where a workman claims a clearance certificate on the ground that the employer is not paying the district rate of wages for his trade, the question whether the employer is or is not paying the district rate of wages should at once be reported to the Board of Trade and promptly determined by arbitration under Part I. of the Munitions of War Act, 1915. If it is decided that the employer is not paying the district rate of wages and the employer refuses to pay it, a workman desirous of leaving the service of the employer should be entitled to a clearance certificate.
- (k) The mere fact that a workman desires to leave his employment in order to take up work more highly remunerated is not, in our view, sufficient reason to entitle him to a clearance certificate unless the more highly paid work to which he desires to go is, having regard to his qualifications for such work, more important in the interest of the country than the work he desires to leave.

- (l) In cases where a workman demands and the employer refuses a clearance certificate the employer should be bound to give the workman in writing the reason for the refusal of the certificate.
- (m) The present procedure in regard to the giving of clearance certificates is unsatisfactory. The official of the employer by whom the certificates are granted is not the same official in every establishment. In some cases it is the Foreman, in others the Works Manager, sometimes the Time-keeper, sometimes a special official appointed for the purpose. In our view the certificate should be granted by the same official in every establishment and that official should be made known and be accessible to the workmen.

7. We think the definition of "munitions work" in the Munitions of War Act, 1915, is too restricted. Employers are forced by the exigencies of the manufacture of munitions to give the term a wider meaning than it bears in the Act. This has led to differences with munitions workers. The definition should be amended so as to include the construction, erection, maintenance, repair and renewal of machinery, plant and appliances required for the manufacture or repair of articles required for use in war, and also of machinery, plant and appliances constituting the power, lighting, water, gas and transport equipment of factories and workshops in which munitions are manufactured.

8. Machinery is required for settling the more important and acute disputes between foremen and workmen. It is essential in the interests of discipline that the lawful authority of the foreman be upheld, and the Trade Unions, we believe, prefer that the employment and dismissal of men should be a matter for the foreman. But it must be recognised that under the conditions of the Munitions of War Act, 1915, situations between foremen and workmen are created which did not arise before the Act and relations, as a consequence, become frequently strained to breaking-point. We are satisfied it would much conduce to the efficient and harmonious operation of the Act if some procedure were created for determining quickly such disputes.

9. Before the Munitions of War Act, 1915, piece-prices were determined by mutual agreement between employers and workmen. Under the Act, although that position is nominally continued, a workman may in practice be compelled, for a time, to work at piece-prices to which he objects. Works rules should provide for determination locally of any dispute in regard to piece-prices, either under Part I. of the Act or in some other prompt and effective manner.

10. An appeal to a skilled and experienced tribunal should be provided from the decisions of both Local and General Munitions Tribunals. The informality of the procedure before these Tribunals coupled with the fact that frequently neither employer nor workman knows the real facts of the case against him results in these Tribunals being often deprived of material information in regard to the real

issue, which frequently turns out on inquiry to be entirely different from the one on which the case was originally launched. Having regard to the important part played by the Tribunals in the enforcement of the Munitions of War Act, 1915, and to the weight attached to their decisions, we strongly recommend that there should be means of providing for a re-trial where the interests of justice so require, and for reducing variant local decisions to a uniform principle.

11. An employer should not be allowed to dismiss a munition worker without reasonable cause. The importance to the country of the workman's labour is the reason for the limitations imposed upon his leaving, on his own initiative, his employment on Government work in an establishment to which section 7 of the Munitions of War Act, 1915, has been applied. Precisely the same reason should negative the right of an employer to insist, without reasonable cause, on the workman leaving that employment.

12. Much confusion exists in the minds of munition workers by reason of the absence in most cases of any printed and published statement of the domestic works rules in controlled establishments and other establishments engaged in the manufacture of munitions of war, and disputes are common as to whether an alleged rule is or is not in force, and whether, assuming a rule is in force, workmen have or have not complied with it. In our view, it is essential at the present time that as far as possible there should be uniformity in the domestic rules of all similar establishments in one district, and full and complete publication of those rules in written form, and that the reasonableness (if challenged) of the domestic rules should be a matter to be determined promptly under Part I. of the Munitions of War Act, 1915.

13. In the case of a workman engaged on non-munitions work in establishments:—(1) Partly but not mainly engaged in making munitions of war; (2) mainly engaged in making munitions of war; (3) controlled—considerable uncertainty prevails as to the position in regard to:—

- (a) Clearance certificates;
- (b) Obeying domestic works rules;
- (c) Obeying foreman's orders.

We think that, having regard to the divergent views held by employers and workmen, the position should be made clear by an official statement from the Ministry of Munitions, or, if necessary, by the publication of a rule. The present uncertainty engenders much unnecessary controversy and bad feeling.

14. The hardships imposed upon certain Canadian workmen who were induced to come over to the Clyde District on exaggerated representations of the amount they would earn in making munitions were strongly impressed upon us. The circumstances are regrettable, but it is no part of our duty, nor indeed is it within our power, to find who was responsible for these representations. As the matter is now past and is not likely to recur, it is sufficient, we think, to record the fact for your information.

15. A considerable amount of inconvenience was caused to munition workers in the Clyde District by the Munitions of War Act, 1915, coming into practical operation just about the time of the Glasgow Fair Holidays. This again is a matter of the past which cannot recur, and it is unnecessary to discuss a number of the cases of hardship that in consequence thereof resulted, but without doubt they tended to create a feeling of unrest throughout the district.

16. A number of cases were brought before us where it was alleged that employers were treating differentially the original tradesmen and the introduced tradesmen in a trade into which other tradesmen had since the War been introduced, as for instance in the allotment of overtime to the introduced tradesmen and the refusal of it to the original tradesmen. We do not think the employers did other than what was necessary under the circumstances of the cases, but those circumstances were such as, without explanation, to create misunderstanding. This class of case is typical of many differences resulting from inadequate explanation to munition workers who feel themselves aggrieved of the reasons and justification for an employer's action. At the same time we think that any arbitrary differentiation in such a case should be in terms prohibited.

17. As we have already observed, many of the differences brought before us would never have grown into disputes affecting the whole of the employers and munitions workers in the Clyde District had they been promptly dealt with in their embryo stage. We have come to the conclusion that if there was some person of experience in industrial matters appointed by you in the Clyde District to act as a mediator or conciliator, with possibly final power in minor matters, accessible with a minimum of delay, the great majority of the disputes we have inquired into would have been prevented, and those not wholly disposed of, localised in their effects.

18. Finally we recommend that imprisonment should be abolished for non-payment of fines inflicted upon a workman by a Munitions Tribunal. In the event of non-payment by the workman of a fine inflicted upon him, or of costs which he has been ordered to pay, the Tribunal should have jurisdiction to order the employer, or successive employers, of the workmen as the case may be, to deduct and dispose of as the Tribunal may direct the total amount thereof from the workman's wages by weekly instalments prescribed by the Tribunal.

19. In adverting to the foregoing matters in this report we desire to make clear that we have not as yet come to any decision on some other questions submitted to us by the Trade Union Officials and the employers. They will form part of the subject of our Final Report.

We have the honour to be,

Your obedient Servants,

(Signed) BALFOUR OF BURLEIGH.
LYNDEN MACASSEY.

APPENDIX V.
(CHAPTER III)

Munitions of War (Amendment) Act, 1916.

[5 & 6 GEO. 5. CH. 99.]

ARRANGEMENT OF SECTIONS.

Section.

1. Power to declare Government factories, &c., controlled establishments.
2. Amendment of section one of principal Act.
3. Amendment of section six of principal Act.
4. Offences by employers in connection with munitions workers assigned to them.
5. Amendment of section seven of principal Act.
6. Rates of wages of women employed on munitions work.
7. Rates of wages of semi-skilled and unskilled labour in controlled establishments.
8. Establishment of special arbitration tribunals.
9. Extension of definition of munitions work.
10. Amendment of section nine of principal Act.
11. Amendment of section four of principal Act.
12. Explanation of term "workman."
13. Amendment of section fifteen of principal Act.
14. Punishment for false statements, &c.
15. Restriction on change from union to non-union labour.
16. Extension of section eleven of principal Act.
17. Powers of inspectors.
18. Provisions as to offences.
19. Minor amendments of principal Act.
20. Arrangements with other departments.
21. Admissibility in evidence of certificates by Board of Trade.
22. Costs in vexatious proceedings.
23. Exclusion of Arbitration Act, 1889.
24. Effect of revocation of orders.
25. Provision as to rules.
26. Duration of principal Act.
27. Short title.

An Act to amend the Munitions of War Act, 1915.

[27th January, 1916.]

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. The Minister of Munitions may by order declare any establishment or establishments belonging to or under the control of His Majesty or any Government Department in which munitions work is carried on to be a controlled establishment or controlled establishments as the case may be, and thereupon the provisions of the Munitions of War Act, 1915 (hereinafter referred to as "the principal Act"), and this Act relating to controlled establishments shall apply to such an establishment or establishments subject to such modifications and exceptions necessary to adapt those provisions to such an establishment or establishments as may be specified in such order.

2. Subsection (2) of section one of the principal Act shall have effect as if after the words "in any case in which they think fit may" there were inserted the words "and in the case where the difference is a difference between an employer and persons employed which appears to the Board of Trade a bona fide difference and which the Board have failed to settle by such steps as aforesaid, shall within twenty-one days from the date of the report."

3.—(1) Where a workman has entered into an undertaking with the Minister of Munitions under section six of the principal Act, and was at the time of entering into that undertaking in the employment of any employer, then if that employer within the period of six weeks from the date of the undertaking dismisses that workman from his employment, he shall be guilty of an offence under the principal Act, and shall be liable to a fine not exceeding five pounds, unless he proves that there was reasonable cause for dismissing the workman.

(2) It is hereby declared that where the fulfilment by any workman of any contract is interfered with by the necessity on his part of complying with an undertaking entered into by him under section six of the principal Act, that necessity is a good defence to any action or proceedings taken against that workman in respect of the non-fulfilment of the contract so far as it is due to the interference, and he shall be entitled to enter into such an undertaking notwithstanding the existence of such a contract.

(3) Section six of the principal Act shall apply to a workman who had before the passing of the principal Act entered into an undertaking of the nature mentioned in that section in like manner as if the undertaking had been entered into in pursuance of that section.

4. Where a person who has been temporarily released from naval or military service for the purpose of employment on or in connection with munitions work, or a workman who has entered into an under-

taking with the Minister of Munitions under section six of the principal Act, or to whom that section is applied by this Act, has been assigned to any employer, and that employer has entered into an undertaking with the Minister of Munitions as to the class or description of work on or in connection with which the person or workman so assigned to him is to be employed, then, if the employer acts in contravention of or fails to comply with any of the provisions of the undertaking, he shall be guilty of an offence under the principal Act and liable to a fine not exceeding five pounds.

5.—(1) Section seven of the principal Act shall have effect as if for subsections (1) and (2) of that section the following two subsections were substituted:—

“(1) A person shall not give employment to a workman who has within the last previous six weeks, or such other period as may be provided by order of the Minister of Munitions as respects any class of establishment, been employed on or in connection with munitions work in any establishment of a class to which the provisions of this section are applied by order of the Minister of Munitions, unless he holds a certificate from the employer by whom he was last so employed or from a munitions tribunal that he is free to accept other employment.

“(2) If any workman or his trade union representative complains to a munitions tribunal, in accordance with rules made with respect to those tribunals, that an employer has unreasonably refused or neglected to issue such a certificate as aforesaid, that tribunal may, after examining into the case, if it thinks fit, itself issue such a certificate or order the issue of such a certificate by the employer.”

(2) Where a workman employed on or in connection with munitions work in any establishment of a class to which the provisions of section seven of the principal Act are for the time being applied by an order made thereunder is dismissed or discharged by his employer, the employer shall forthwith give him such a certificate as aforesaid, and if he fails to do so, a munitions tribunal may, in addition to issuing or ordering the issue to him of such a certificate, order the payment to him by the employer of such sum, not exceeding five pounds, as the tribunal may think fit, unless the tribunal is of opinion that the workman was guilty of misconduct for the purpose of obtaining dismissal or discharge.

This subsection shall apply to a workman who applies for a certificate on the ground that he has for a period of more than two days been given no opportunity of earning wages, or who leaves his employment on account of conduct on the part of the employer, or any agent of the employer, which would justify the immediate termination by the workman of his contract of service, in like manner as if he had been dismissed or discharged by his employer.

(3) Where a contract of service with a workman employed on or in connection with munitions work in any establishment of a class to which the provisions of section seven of the principal Act are for the time being applied by an order made thereunder is terminated by dismissal, and less than one week's notice, or wages in lieu of notice, has or have been given, the employer shall, subject to the provisions of this subsection, within twenty-four hours of giving notice of dismissal to the workman report the matter in such manner as may be prescribed by rules made by the Minister of Munitions, and such rules shall provide for the determination by a munitions tribunal (in case of difference) of the amount, if any, and not in any case exceeding five pounds, which is to be paid by the employer to the workman in lieu of notice, and for the payment of the sum so determined to the workman, unless the tribunal is of opinion that owing to the discontinuous or temporary nature of the employment or misconduct of the workman the employer had reasonable cause for dismissing the workman without a week's notice :

Provided that nothing in this subsection shall apply to workmen engaged in ship repairing, or to any class of workmen exempted in the prescribed manner on the ground that the circumstances of their employment were such that the provisions of this subsection ought not to apply to them.

(4) The provisions of section seven of the principal Act which prohibit the giving of employment to workmen in the circumstances mentioned in that section shall not apply so as to prevent the giving of employment to a workman in a controlled establishment to which he has been assigned by the Minister of Munitions in pursuance of section six of the principal Act.

(5) In determining whether the grant of a certificate has been unreasonably refused for the purposes of section seven of the principal Act as amended by this section, a munitions tribunal shall take into consideration the question whether the workman has left or desires to leave his work for the purpose of undertaking any class of work in which his skill or other personal qualifications could be employed with greater advantage to the national interests, and whether the employer has failed to observe the conditions laid down in the fair wages clauses required by resolution of the House of Commons to be inserted in Government contracts, and whether the workman has left or desires to leave his work because he has recently completed a term of apprenticeship or period of learning his trade or occupation and desires to obtain the full standard rate of wages applicable to fully qualified workmen in his trade or occupation.

(6) The Minister of Munitions may make rules for carrying section seven of the principal Act as amended by this section into effect, and in particular may by such rules provide—

(a) for the issue, form, custody, duration, delivery up, and replacement in case of loss or destruction, of certificates :

- (b) for the issue of certificates to persons not engaged on or in connection with munitions work ;
- (c) for prohibiting the insertion in a certificate issued by an employer of any matter other than the prescribed particulars ;

and may provide for any breach of such rules being punishable as an offence under the principal Act with a fine not exceeding five pounds.

(7) This section shall not come into operation until such date as may be fixed by the rules made thereunder.

6.—(1) Where female workers are employed on or in connection with munitions work in any establishment of a class to which the provisions of section seven of the principal Act as amended by this Act are for the time being applied by an order made thereunder, the Minister of Munitions shall have power by order to give directions as to the rate of wages, or (subject, so far as the matter is one which is dealt with by the Factory and Workshops Acts, 1901 to 1911, to the concurrence of the Secretary of State) as to hours of labour, or conditions of employment of the female workers so employed.

(2) Any directions given by the Minister of Munitions under this section shall be binding on the owner of the establishment and any contractor or sub-contractor employing labour therein and the female workers to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable, in like manner as if the order in which the direction is contained was an award made in settlement of a difference under Part I. of the principal Act.

(3) No direction given under this section shall be deemed to relieve the occupier of any factory or workshop from the obligation to comply with the provisions of the Factory and Workshops Acts, 1901 to 1911, or of any orders or regulations made thereunder, or to affect the liability of any person to be proceeded against for an offence under the Employment of Children Act, 1903, so however that no person be twice punished for the same offence.

7. The Minister of Munitions shall have power by order to give directions as to the rate of wages, hours of labour, or conditions of employment of semi-skilled and unskilled men employed in any controlled establishment on munitions work being work of a class which, prior to the war, was customarily undertaken by skilled labour, or as to the time rates for the manufacture of complete shell and fuses and cartridge cases in any controlled establishment in which such manufacture was not customary prior to the war ; and any direction so given shall be binding on the owner of the establishment, and any contractor or sub-contractor employing labour therein, and the workers to whom the directions relate, and any contravention thereof or non-compliance therewith shall be punishable, in like manner as if the order in which the direction is contained was an award made in settlement of a difference under Part I. of the principal Act.

8.—(1) The Minister of Munitions may constitute special arbitration tribunals to deal with differences reported under Part I. of the principal Act which relate to matters on which the Minister of Munitions has given or is empowered to give directions under the last two preceding sections, and the Board of Trade may refer any such difference for settlement to such tribunal in lieu of referring it for settlement in accordance with the First Schedule to the principal Act.

(2) The Minister of Munitions may also refer to a special arbitration tribunal so constituted, for advice, any question as to what directions are to be given by him under the said sections.

(3) The tribunal to which matters and questions relating to female workers are to be referred under this section shall include one or more women.

9.—(1) The expression “munitions work” for the purposes of the principal Act and this Act means—

- (a) the manufacture or repair of arms, ammunition, ships, vessels, vehicles, and aircraft, and any other articles or parts of articles (whether of a similar nature to the aforesaid or not) intended or adapted for use in war, and of any other ships or vessels, or classes of ships or vessels, or parts of ships or vessels, which may be certified by the Board of Trade to be necessary for the successful prosecution of the war, and of any metals, machines, or tools required for any such manufacture or repair, and of the materials, of any class specified in an order made for the purpose by the Minister of Munitions, required for, or for use in, any such manufacture or repair as aforesaid; and
- (b) the construction, alteration or repair of works of construction and buildings for naval or military purposes, and of buildings in which munitions work is or is intended to be carried on, and the erection of machinery and plant therein, and the erection of houses for the accommodation of persons engaged or about to be engaged on munitions work; and
- (c) the construction, alteration, repair, or maintenance of docks and harbours and work in estuaries in cases where such construction, alteration, repair, maintenance or work is certified by the Admiralty to be necessary for the successful prosecution of the war; and
- (d) the supply of light, heat, water, or power or the supply of tramways facilities in cases where the Minister of Munitions certifies that such supply is of importance for the purpose of carrying on munitions work, and the erection of buildings, machinery, and plant required for such supply; and
- (e) the repair of fire engines and any other fire brigade appliances in cases where the Minister of Munitions certifies that such repair is necessary in the national interest.

(2) In section three of the principal Act there shall be added after the words "affecting employment on," in both places where those words occur, the words "or in connection with," and in the same section the words "the manufacture or repair of arms, ammunition, ships, vehicles, aircraft, or any other articles required for use in war, or of the metals, machines, or tools required for that manufacture or repair in this Act referred to as" shall be repealed.

(3) This section shall not come into operation until the time fixed by rules made under section five of this Act as the date for the commencement of that section.

10. At the end of section nine of the principal Act the following proviso shall be inserted :—

"Provided that the power of making an order applying section seven of this Act to any dock shall rest with the Minister of Munitions and not with the Admiralty."

11. Subsection (2) of section four of the principal Act shall be read as if the words "or to any agreement existing before the" establishment became a controlled establishment, between the owner of the establishment and an employee with regard to any periodical increase of remuneration" were inserted after the words "nineteen hundred and fifteen."

12. For removing doubts it is hereby declared that the expressions "workman" and "workmen," wherever they occur in the principal Act and this Act, include not only persons whose usual occupation consists in manual labour, but also foremen, clerks, typists, draughtsmen, and other persons whose usual occupation consists wholly or mainly in work other than manual labour.

13. Subsection (4) of section fifteen of the principal Act shall be read as if the words "of the second class" were struck out.

14. For section twelve of the principal Act the following section shall be substituted :—

"12. If any person makes any false statement or representation, or gives any false certificate, or furnishes any false information—

- (a) for the purpose of evading any provision of this Act ; or
- (b) in any proceedings before any munition tribunal, arbitration tribunal, referee, or board of referees under this Act or the rules made thereunder ; or
- (c) to the Minister of Munitions or any officer employed by him, for the purpose of obtaining or retaining employment, or of obtaining or retaining the services of any workman ;

or if any person alters or tampers with a certificate given under section seven of this Act, or personates or falsely represents himself to be a person to whom such a certificate has been given, or allows any other person to have possession of any such certificate issued for his use alone, he shall be guilty of an offence

and liable on conviction under the Summary Jurisdiction Acts to imprisonment with or without hard labour for a term not exceeding three months or to a fine not exceeding fifty pounds."

15. Where non-union labour is introduced during the war into any class of work in a controlled establishment in which it was the practice prior to the war to employ union labour exclusively the owner of the establishment shall be deemed to have undertaken that such introduction shall only be for the period of the war, and if he breaks or attempts to break such an undertaking he shall be guilty of an offence under the principal Act and liable to a fine not exceeding fifty pounds ; but subject as aforesaid such introduction shall not be deemed to be a change of working conditions.

16.—(1) In subsection (1) of section eleven of the principal Act, which specifies the matters in respect of which owners of establishments in which persons are employed are, if required by the Minister of Munitions, to give information, the following paragraph shall be inserted after paragraph (c) :—

(cc) the cost of production of the articles produced or dealt with in the establishment, and the cost of the materials used for such production, and the names and addresses of the persons by whom such materials were supplied or who are under contract to supply them.

(2) If any person, except as authorised by the Minister of Munitions, discloses or makes use of any information given under section eleven of the principal Act, as amended by this or any subsequent enactment, he shall be guilty of a misdemeanour and on conviction be liable to imprisonment, with or without hard labour, for a term not exceeding two years, or to a fine, or to both imprisonment and a fine.

17.—(1) An inspector appointed by the Minister of Munitions for the purposes of the principal Act shall have power to enter at all reasonable times the premises of any establishment (other than a private dwelling-house not being a workshop) for the purpose of ascertaining whether it is desirable to put in force as respects any establishment or any person employed therein any of the powers of the Minister of Munitions, whether under the principal Act or otherwise, or for the purpose of obtaining any information in connection with the supply of munitions, and to make such examination and inquiry as may be necessary for any such purpose, and the owner of the establishment and every person engaged in the management or direction of the establishment shall furnish to any such inspector all such information, and shall produce for inspection all such registers, wages books, and other similar documents, as the inspector may reasonably require.

(2) If any person wilfully delays or obstructs an inspector in the exercise of any power under this section or fails to give such information or to produce such documents as aforesaid, he shall be guilty of an

offence under the principal Act, and shall be liable to a fine not exceeding ten pounds.

(3) Every inspector shall be furnished with a certificate as to his appointment, and on applying for admission to any premises for the purposes of this section shall, if so required, produce such certificate.

18.—(1) All offences which are by or under this Act made offences under the principal Act, other than those for which the maximum fine exceeds five pounds, shall be deemed to be offences with which munitions tribunals of the second class have jurisdiction to deal.

(2) Rules under section fifteen of the principal Act shall provide—

(a) that in proceedings before a munitions tribunal the chairman shall, before giving his decision, consult with the assessors, and in all cases where the assessors are agreed he shall, except as respects questions which appear to the chairman to be questions of law, give effect to their opinion in his decision ;

(b) that where the person or persons by or on behalf of whom or against whom the complaint is made in any proceedings before a munitions tribunal is or are a female worker, or two or more female workers, the assessor or one of the assessors chosen from the panel of persons representing workmen shall be a woman.

(3) Decisions of munitions tribunals shall be subject to appeal to such judge of the High Court as may be appointed by the Lord Chancellor for the purpose on any ground which involves a question of law or a question of mixed law and fact, or on any other ground that may be prescribed in rules made by the Lord Chancellor in such cases and subject to such conditions and in such manner, as may be specified in such rules, and whether by means of the statement of a special case for the opinion of the judge or otherwise ; and those rules may provide for such appeals in any classes of cases specified therein being heard and determined in a summary manner and for the fixing, remission, or reduction of any fees and scales of costs, and as to the manner in which effect is to be given to the decision of the judge, and the decision of the judge on any such appeal shall be final and binding on all munitions tribunals.

In the application of this provision to Scotland " High Court " shall mean Court of Session, " Lord Chancellor " shall mean Lord President of the Court of Session, " rules made by the Lord Chancellor " shall mean Act of Sederunt.

In the application of this provision to Ireland " Lord Chancellor " shall mean the Lord Chancellor of Ireland.

(4) In the case of a company being guilty of an offence under the principal Act, every director, manager, secretary, or other officer of the company, who is knowingly a party to the contravention or non-compliance constituting the offence shall also be guilty of the offence and liable to the like fine as the company.

(5) In subsection (3) of section fifteen of the principal Act, after the words "so far as relates to offences" there shall be inserted "and the enforcement of orders."

19.—In subsection (3) of section five of the principal Act, after the words "affords no standard of comparison" there shall be inserted the words "or that no such average exists," and after the words "if he thinks just, allow," there shall be inserted the words "or require"; and in paragraph nine of the Second Schedule to the principal Act, for the word "fourth," there shall be substituted the word "third."

20. The Minister of Munitions may make arrangements with any other Government department for the exercise and performance by that department of any of his powers and duties under the principal Act or this Act which appear to him to be such as could be more conveniently so exercised and performed, and in such case the department and the officers of the department shall have the same powers and duties for the purpose as are by the principal Act and this Act conferred on the Minister of Munitions and his officers.

21. For the purposes of proceedings under section two of the principal Act, a certificate of the Board of Trade purporting to be signed by the President or a secretary or assistant secretary of the Board of Trade, or by a person authorised for the purpose by the President that a difference to which Part I. of the principal Act applies has or has not been reported to the Board, and, in cases where such a difference has been reported, as to the date on which it was reported, shall be admissible as evidence of the facts therein stated.

22.—(1) Where a munitions tribunal dismisses any case under the principal Act or this Act, and it appears to the tribunal that the proceedings were vexatious or frivolous, the tribunal shall, unless it sees good cause to the contrary, award costs to the person against whom the complaint is made, and the costs so awarded shall, unless good cause to the contrary appears, include such sum as compensation for the expenses, trouble, and loss of time incurred in or incidental to the attendance of the person against whom the complaint is made before the tribunal as to the tribunal may seem just and reasonable.

(2) Where a referee or board of referees to whom a matter has, under subsection (3) of section five of the principal Act, been referred by the Minister of Munitions on the requirement of the owner of an establishment, considers that the requirement was unreasonable, the referee or board of referees may order that any costs payable by the owner of the establishment shall be paid out of the amount of profits divisible under the principal Act.

23. The Arbitration Act, 1889, shall not apply to any reference to any referee or board of referees under the principal Act or this Act or the rules made thereunder.

24. Where the Minister of Munitions makes an order revoking any order previously made by him under section four of the principal Act, the order so revoked shall, if that order has not been in operation

for more than three months and was made under a misapprehension and the revoking order so directs, be treated for all or any of the purposes thereof as if it had never had effect.

25. Rules and regulations made under the principal Act as amended by this Act shall not be deemed to be statutory rules within the meaning of section one of the Rules Publication Act, 1893.

26. In subsection (2) of section twenty of the principal Act, which relates to the duration thereof, the words "Part I. of" shall be repealed.

27. This Act may be cited as the Munitions of War (Amendment) Act, 1916, and shall be construed as one with the principal Act, and the principal Act and this Act may be cited together as the Munitions of War Acts, 1915 and 1916.

INDEX.

ADDISON, Dr. C. 70, 86, 89
 ADMIRALTY, 38, 73, 73 (n.), 74, 79, 84,
 87, 88.
 AITKEN, Mr. 50, 51
 AMALGAMATED SOCIETY OF ENGINEERS,
 30, 36, 37, 38, 39, 40, 41, 42, 55, 62,
 68.
 ANDERSON, Mr. W. C. 75 (n.), 82
 ARBITRATION—
 Compulsory . . . 2 ff., 9 ff., 69, 70, 82
 Tribunals 2, 49
See COMMITTEE ON PRODUCTION.
 Delay in 3, 63, 64, 82
 Acceleration of procedure, 64, 69, 70,
 82.
 ASQUITH, Mr. H. H. 6, 71
 ASKWITH, Sir George . . 3 ff, 6, 7, 38, 40

 BALFOUR, Mr. A. J. 73
 BALFOUR OF BURLEIGH, Lord, 50, 55,
 56, 57, 58, 71.
See CLYDE COMMISSION.
 BARTHELOT, Captain 45 (n.)
 BEVERIDGE Mr. 33 (n.)
 BIGGART, Mr. 33
 BLACK, Sir F. W. 89
 BOARD OF TRADE, 2 ff., 10, 16, 49, 55,
 69, 70, 72, 73, 73 (n.), 82, 83, 89.
See CHIEF INDUSTRIAL COMMISSIONER.
 BOARD OF TRADE, PRESIDENT OF—
See Mr. RUNCIMAN.
 BOILERMAKERS' SOCIETY 68
 BRACE, Mr. W. 7, 8
 BROWNIE, Mr. J. T. 30, 55
 BUTTON, Mr. F. S. 68

 CANADIAN WORKMEN 63
 CARTER, Mr. G. 33 (n.)
 CHIEF INDUSTRIAL COMMISSIONER—*See*
 ASKWITH, Sir George.
 CLYDE COMMISSION—
 Appointment 55
 Terms of reference 56
 Interim report on Fairfield Strike,
 57 ff, 101.
 Enquiry into grievances under
 Munitions Act, 60 ff.
 Recommendations 64 ff.
 Report . . . 65, 71, 79, 80, 106 ff.

CLYDE MUNITION WORKERS—
 Enquiry into grievances . . . 56 ff.
 Interim Report . . . 57, 58, 60, 101
 T.U. representatives break off
 enquiry, 58.
 Ultimatum to Government . . . 58
 Deputation to Mr. Lloyd George, 59
 Grievances against Section 7 . 60 ff.
 Recommendations of Commission,
 64 ff, 106 ff.
 CLYDE SHIPYARDS JOINT TRADES
 VIGILANCE ASSOCIATION, 56.
 CLYNES, Mr. J. R. 68
 COMMITTEE ON PRODUCTION, 2, 3, 6,
 40, 41, 82.
 CONCILIATION 2 ff.
 CONFERENCES—
 Miners (July, 1915) 8, 9
 Shipbuilding Employers' Federation
 (12/8/15), 25, 26.
 Treasury (19/3/15) 41
 A.S.E. (25/3/15) 42
 Clyde Deputation (26/10/15) . 59
 National Advisory Committee
 (17/11/15), 67, 68
 Trade Union Delegates (30/11/15),
 68 ff.
 Engineering & Shipbuilding Em-
 ployers (3/12/15). 70, 71.
 A.S.E. (30/12/15) 71
 CONSCRIPTION, INDUSTRIAL . . 48, 66
 CONTRACTS, TIME AND LINE . . 15, 40
 CONTROLLED ESTABLISHMENTS, 1, 23,
 24, 25, 27, 28, 29, 32, 49, 65, 67,
 68, 83, 84, 85, 87 (n.), 91.
 COST OF LIVING 37, 38

 DEFENCE OF THE REALM ACT—
 Reg. 8 B, 15, 16, 19, 22.
 Reg. 56 (14), 22 (n.)
 Reg. 42, 81, 82.
 DISPUTES—
 Settlement of, 2 ff., 63, 64, 69, 70, 82
 Statistics of 9, 10
 DRINK 42, 43
 DUKE, Mr. 13
 DUNCAN, Mr. C. 82

 ELECTRIC POWER STATIONS . . 74, 89
 ENGINEERING & SHIPBUILDING TRADES
 FEDERATION, 68.

- ENGINEERING EMPLOYERS' FEDERATION, 18, 23 (n.), 26, 28, 37, 40, 41, 70, 71.
 Model Rules 28 ff., 95 ff.
- FAIRFIELD SHIPBUILDING & ENGINEERING COMPANY—
 Coppersmiths' Strike 49, 50
 Shipwrights' Strike 50 ff.
 Interim report on Shipwrights' strike, 57, 58, 60, 100 ff.
- FLEMING, Mr. D. 51, 55
 FORWARD 38, 48
 FYFE, Sheriff, T. A. 47, 52
- GARROD, Mr. H. W. 89
 GEORGE, Mr. D. Lloyd, 8, 9, 26, 30, 42, 43, 45, 46, 54, 59, 60, 65, 66, 67, 68, 70, 71, 73, 79, 80, 81, 82, 87, 87 (n.), 89, 89 (n.), 90.
- GIROUARD, Sir P. 45
 GLASGOW & WEST OF SCOTLAND ARMAMENTS COMMITTEE, 45 ff., 49
 GLASGOW HERALD 53
 GOLDSTONE, Mr. 79
 GOVAN & DISTRICT UNITED TRADES COUNCIL, 54, 55.
- GOVERNMENT FACTORIES—
 Declaration of Control, 23 67, 67 (n.), 83, 83 (n.)
- HEALTH OF MUNITION WORKERS COMMITTEE, 85.
- HENDERSON, Mr. Arthur 8, 9, 67
 HENDERSON, Mr. F. N. 25, 26
 HILL, Mr. T. H. 53, 54
 HODGE, Mr. J. 73 (n.), 76 (n.)
 HOLT, Mr. R. D. 74
 HOPKINS, Mr. 54, 55
 HOUSING 43, 44, 103 ff.
- IMPRISONMENT, 11, 53, 54, 55, 56, 57, 58, 65, 69, 70, 79, 80, 81, 111.
- INCITEMENT TO STRIKE 67, 81
- JOINT COMMITTEES. 45 ff., 69, 70
- KIRKWOOD, Mr. D.. . . . 39
- LABOUR EXCHANGES 16, 19
 LABOUR—
 Local Advisory Board 46, 46 (n.)
 LABOUR, NON-UNION 84
 LABOUR OFFICERS 4, 5, 17, 33, 55
 LABOUR REGULATION 1, 34, 35
 LABOUR STEALING 14 ff.
 LANG, J. & Sons 25 (n.)
 LAW, Mr. Bonar 38, 43
 LAW OFFICERS OF THE CROWN, 21, 22, 67, 81, 88.
- LEAVING CERTIFICATES, 14 ff., 60 ff., 64 ff., 75 ff., 87 ff., 107.
 Applications for 13, 20
 Issue of, to workmen dismissed, discharged or suspended, 17, 18, 61, 64, 67, 68, 75.
 Limitation of, to controlled establishments, 18, 87 (n.)
 Power to make Rules 18, 67, 77
 Conversion into character notes, 18, 52, 57, 60, 75, 77.
 Grievances of Clyde workmen, 52, 60 ff.
 Recommendations of Clyde Commission, 64, 65, 107.
 Amendments desired by Trade Unions, 68, 69.
 Demand for reciprocity, 69, 70, 76
 Amendments made in respect of, 75 ff.
 Extension of scope 87 ff., 89 (n.)
- LOCK-OUT—
 Prohibition of 2 ff.
 Prosecutions 13
 LOOSING RATE 62
- MACASSEY, Mr. Lynden, 50, 55, 56, 57, 71.
 See CLYDE COMMISSION.
- MACDOUGALL, Mr. 51
 MACKENZIE, Sheriff. 49
 McMASTER, Mr.. . . . 51
 MACMILLAN, Mr. 51
 MACNAMARA, Dr. 33 (n.)
 McPHERSON, Mr. C. 52 (n.), 55
- MINERS—
 Oppose compulsory arbitration. 2
 Strike in South Wales 5 ff.
- MILES, Mr. I. C. 67
 MITCHELL, Mr. I. H. 55, 56
 MOGGIDGE, Admiral 87 (n.)
- MUNITIONS TRIBUNALS, 11 ff., 77 ff.
 Constitution of, 11, 68, 69, 70, 77, 78.
 Rules 11, 12, 78
 Jurisdiction of, 11, 12, 77, 78, 79, 84
 Disorder in 12
 Statistics of cases 13, 19, 20, 31
 Cost of 13
 Appeals from. 14, 65, 67, 68, 78, 79
 Prosecutions, 14, 33, 34, 49, 52, 53, 70
 Applications to, for leaving Certificates, 20 ff., 61, 64, 65, 75 ff., 78.
 Enforcement of works rules by, 25 ff., 31 ff., 69, 85, 86.
 Empowered to award compensation for vexatious proceedings, 80.
 Continued to enforce pledge of restoration, 80.
 See IMPRISONMENT.

MUNITIONS OF WAR ACT (1915)—

Ignorance of provisions of . . .	47
Agitation to repeal . . .	55
Demand for amendment of . . .	56
Alternative to conscription . . .	66
Permanent value of . . .	91
Sections 1-3, 2 ff., 9 ff., 21, 49, 52 ff., 63, 69, 70, 71 ff., 82.	
Section 4 (3) and (5), 18, 23, 24 ff., 69, 70, 85 ff., 95 ff.	
Section 7, 14 ff., 17 ff., 60 ff., 66 ff., 75 ff., 87 ff.	
Prosecutions for breach of, 13, 19	
Orders applying, 17, 22, 87 ff., 89 (n.)	
Administration of . . .	17 ff.
Interpretation of . . .	17, 20 ff.
Memorandum explaining . . .	18
Evasion by workmen . . .	19
Grievances against . . .	55, 60 ff.
Amendment of, 22, 64 ff., 67 ff., 75 ff.	
Value of . . .	23, 70

See LEAVING CERTIFICATES.

Section 10	23
Section 12	84
Section 15 (1)-(3)—	

See MUNITIONS TRIBUNALS.

Section 15 (4)—	
<i>See IMPRISONMENT.</i>	
Section 17	85
Section 20	80
Schedule I	2
Schedule II., 23, 47, 48, 80, 84, 85 (n.)	

MUNITIONS OF WAR (AMENDMENT)
ACT, 1916, 112 ff.—

Decision to draft Bill . . .	22, 23, 67
Original proposals . . .	67
Trade Union Demands . . .	67 ff.
Recommendations of Clyde Commis- sion, 64 ff., 106 ff.	
Employers' criticisms . . .	70, 71
Passage through Parliament . . .	71
Section 1	23, 67, 67 (n.), 83, 83 (n.)
Section 2	3, 69, 70, 82
Section 3	83
Section 4	83
Section 5	75 ff.

See LEAVING CERTIFICATES.

Section 6 68, 69, 71, 83, 84, 88, 91	
Section 7	71, 83
Section 8	84
Section 9 2, 21, 65, 67, 71 ff., 73 (n.)	
Section 10	84, 87
Section 11	84
Section 12	21, 77
Section 13	79, 80, 81

See IMPRISONMENT.

Section 14	84
Section 15	84
Section 16	84
Section 17	84

MUNITIONS OF WAR (AMENDMENT)
ACT, 1916—*cont.*

Section 18	77 ff.
----------------------	--------

See MUNITIONS TRIBUNALS.

Section 19	85
Section 20	85, 88, 90 (n.)
Section 21	83
Section 22	80
Section 23	85
Section 24	85
Section 25	85
Section 26	80
MUNITIONS WORK, 2, 14, 17, 21, 61, 65, 67, 71 ff., 73 (n.), 89 (n.)	

NATIONAL ADVISORY COMMITTEE, 11,
27, 59, 67, 68.NATIONAL INSURANCE ACT, 11, 78, 84,
Regulation as to unemployment
books, 19.NORTH-WESTERN ENGINEERING
TRADES EMPLOYERS' ASSOCIA-
TION, 33, 36, 37, 63, 64.NOTICE, ONE WEEK'S—
Of dismissal or discharge, 65, 68, 69,
70, 75, 76.OVER-CROWDING 44
OVERTIME 27, 30, 32, 33, 96, 97

PATERSON, Mr. J. 17, 33, 55

PEEL, Lord 74

PRINGLE, Mr. W. M. R., 14, 66, 79, 80,
85, 87 (n.)

"PROFITEERING" 5, 6, 14, 15, 38

RENT. 38, 55, 103 ff.

ROBERTS, Mr. G. H. 8

ROBERTSON, Sir G. Scott 74

ROCH, Mr. 80

RUNCIMAN, Mr. W. 6, 8, 9, 73

RUSSELL, Dr. J. B. 44

ST. ALDWYN, Lord. 6, 7

SCOTT, Prof. W. R. 103

SCOTTISH LAW COURTS RECORD 48

SCOTTISH OFFICE 57

SECRETARY FOR SCOTLAND, 58, 59, 103

See MR. MCKINNON WOOD.

SHARP, Mr. 59

SHAW, Mr. A. 30

SHELLS AND FUZES AGREEMENT, 41, 49

SHIFTS 95, 96

SHIPBUILDING EMPLOYERS' FEDERA-
TION, 18, 23 (n.), 26, 42, 70.SHIPWRIGHTS' ASSOCIATION, 52 (n.), 53,
54.

SHOP STEWARDS 39, 40, 51

SMITH, Mr. Frank 59, 60

SMITH, Sir H. Llewellyn 56, 67, 70

SOUTH WALES COAL STRIKE, 5 ff., 12

STATUTORY RULES AND ORDERS 85

Employment of ex-Munitions Work-
ers, 16, 17, 18, 22, 87 ff., 89 (n.)*See LEAVING CERTIFICATES.*

STATUTORY RULES AND ORDERS—*cont.*

Munitions (Leaving Certificate)

Rules, 18, 67, 75 (n.), 77, 77 (n.)

Munitions (Tribunals) Rules, 11, 12, 78.

Munitions (ordering of work) Regulations, 24 ff., 85, 86.

See WORKS RULES.

Munitions of War . . . 73, 73 (n.)

Employment and Remuneration, 83, 88.

STRIKES—

Prohibition of 2 ff.

Statistics of 9, 10

Prosecutions 13, 14, 49, 52

Clyde Engineers' Strike (Feb., 1915), 36 ff.

South Wales Coal Strike (July, 1915), 5 ff, 10 (n).

Fairfield Coppersmiths' Strike (July, 1915), 49.

Fairfield Shipwrights' Strike (Aug., 1915), 50 ff.

Rent Strikes (Nov., 1915) . . 103 ff.

SUNDAY LABOUR . . 27 (n.), 32, 85, 86

SWANSON, Mr. 51

TIME-KEEPING—

Petty fines for lost time . . 30, 97

Causes of lost time . . 32, 33, 42, 43

In shipyards 32, 33, 42, 43

Prosecutions undertaken by
Ministry, 33, 34, 68

TIMES 38, 48

TRADE UNIONS—

Attitude of officials to strikes, 10, 38, 39, 54, 56, 59.

Opposition to petty fines for lost time, 30, 31.

Cumbersome procedure . . . 40

Agreements for removal of restrictions, 41, 42.

TRADE UNIONS—*cont.*

Payment of fines by. . . . 49, 54

Press for release of imprisoned shipwrights, 56, 57, 59.

Grievances against Munitions Act, 60 ff.

Amendments proposed by . . 68, 69

TRADE UNION RESTRICTIONS—

Suspension of. 24, 25, 27, 97

Pledge to restore. 41, 42, 47, 48, 80

TREASURY AGREEMENT . . . 41, 42

TREASURY SOLICITOR 12, 14, 21, 22, 67 (n.)

TURNBULL, Mr. 49

TURNER, Mr. T. 51

WAGES—

Relation of Section 7 to. . . 14, 15

Standard rates for women, 68, 69, 71, 83, 84, 88, 91.

Circular, L2 71, 88

Circular, L3 71, 84

WALKER, Mr. Hugh 50

WAR MUNITIONS VOLUNTEERS, 76, 85

WAR OFFICE 74, 89 (n.)

WEIR, G. & J. 38

WELFARE 1

WESTWOOD, Mr. 54

WHITE, Mr. Andrew 50

WILKIE, Mr. A. : 77 (n.), 79

WILSON, Mr. H. J. 42 (n.)

WOLFF, Mr. 67

WOOD, Mr. McKinnon . . . 59, 105

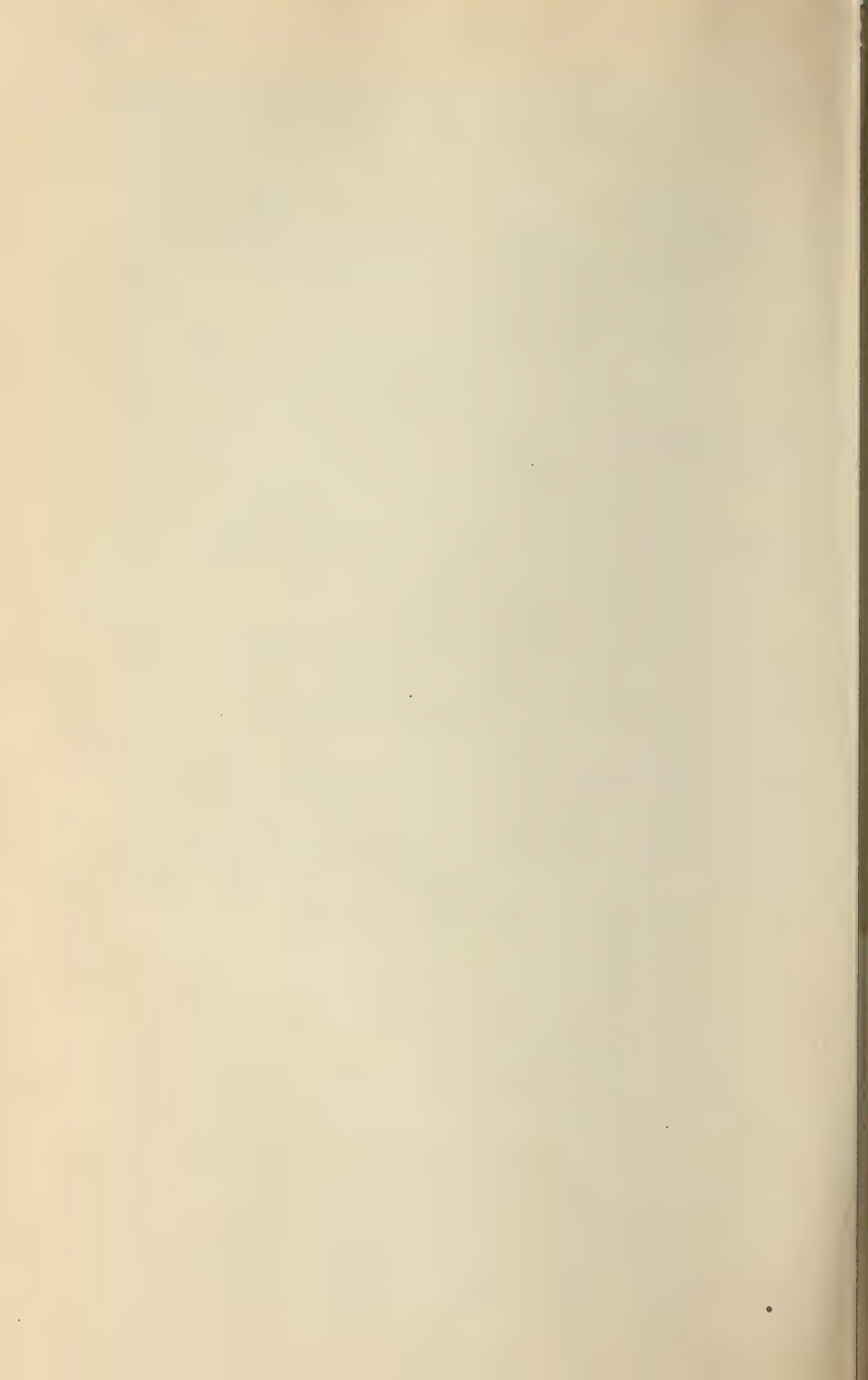
WORKS RULES, 25 ff., 65, 70, 85, 86, 95 ff.

Prosecutions for breach of . 13, 31 ff.

M.M. Model Rules, 27, 28, 69, 70, 85, 86.

E.E.F. Model Rules, 28, 29, 30, 31, 95 ff.

YORK CONFERENCE 31, 37

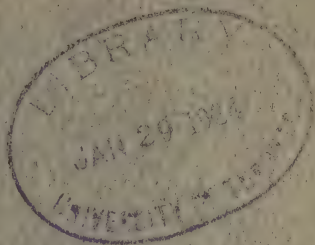


CONFIDENTIAL.

For Official Information only.

Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS



VOLUME IV

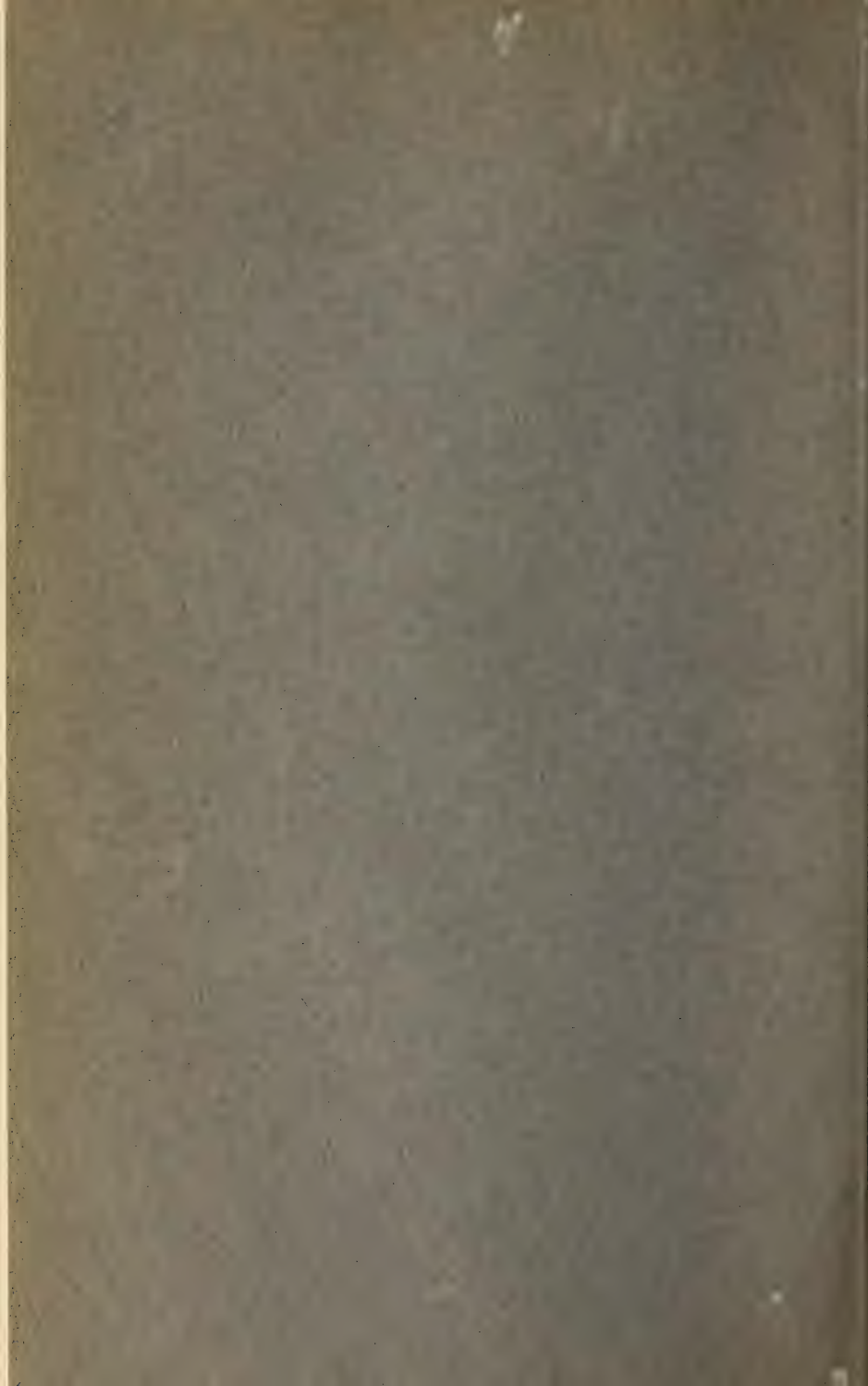
THE SUPPLY AND CONTROL OF LABOUR

1915-1916

PART III

THE LIMITATION OF RECRUITING

132



VOLUME IV
THE SUPPLY AND CONTROL OF LABOUR
1915-1916

PART III
THE LIMITATION OF RECRUITING

CONTENTS.

CHAPTER I.

War Service Badges.

	PAGE
1. The Problem of Organising the State for War	1
2. The Advantages of Voluntary Enlistment in the First Year of the War	3
3. The Admiralty and War Office Lists of Firms and Occupa- tions Exempt from Recruiting	5
4. The Issue of Badges by the Admiralty and the War Office, January to July, 1915	8
5. The Provisions in the Munitions of War Act, 1915, relating to Badges	11
6. The Ministry's Scheme for the Issue of Badges. Corre- spondence with the Admiralty and the War Office ..	14
7. The Munitions (War Service Badges) Rules, 1915	17
8. The Procedure Adopted in dealing with Applications for Badges	20
9. The Classes of Men to whom Badges were Issued	22
10. The Value and Defects of the Badge	24

CHAPTER II.

The Derby Attestation Scheme.

1. The National Registration Act, 1915	26
2. The Pink Forms and Starred Occupations.. .. .	29
3. The Military Capacity and Obligations of the Country ..	32
4. The Economic and Financial Situation	33
5. The Argument for making Military Service Compulsory ..	35
6. The Argument for giving a Further Trial to Voluntary Recruiting	37

	PAGE
7. Lord Derby's Campaign. The last effort of Voluntary Recruiting	41
8. The Problem of Protecting Munition Workers under Lord Derby's Scheme	44
9. The Establishment of Local Tribunals	45
10. The Negotiations as to the Exemption of Badged and Starred Men. October-November, 1915.. .. .	47
11. The Release of Badged and Starred Men Wrongfully Enlisted	51
12. Arrangements relating to the Exemption of Munition Workers	52

CHAPTER III.

The Industrial Incidence of the Military Service Acts, 1916.

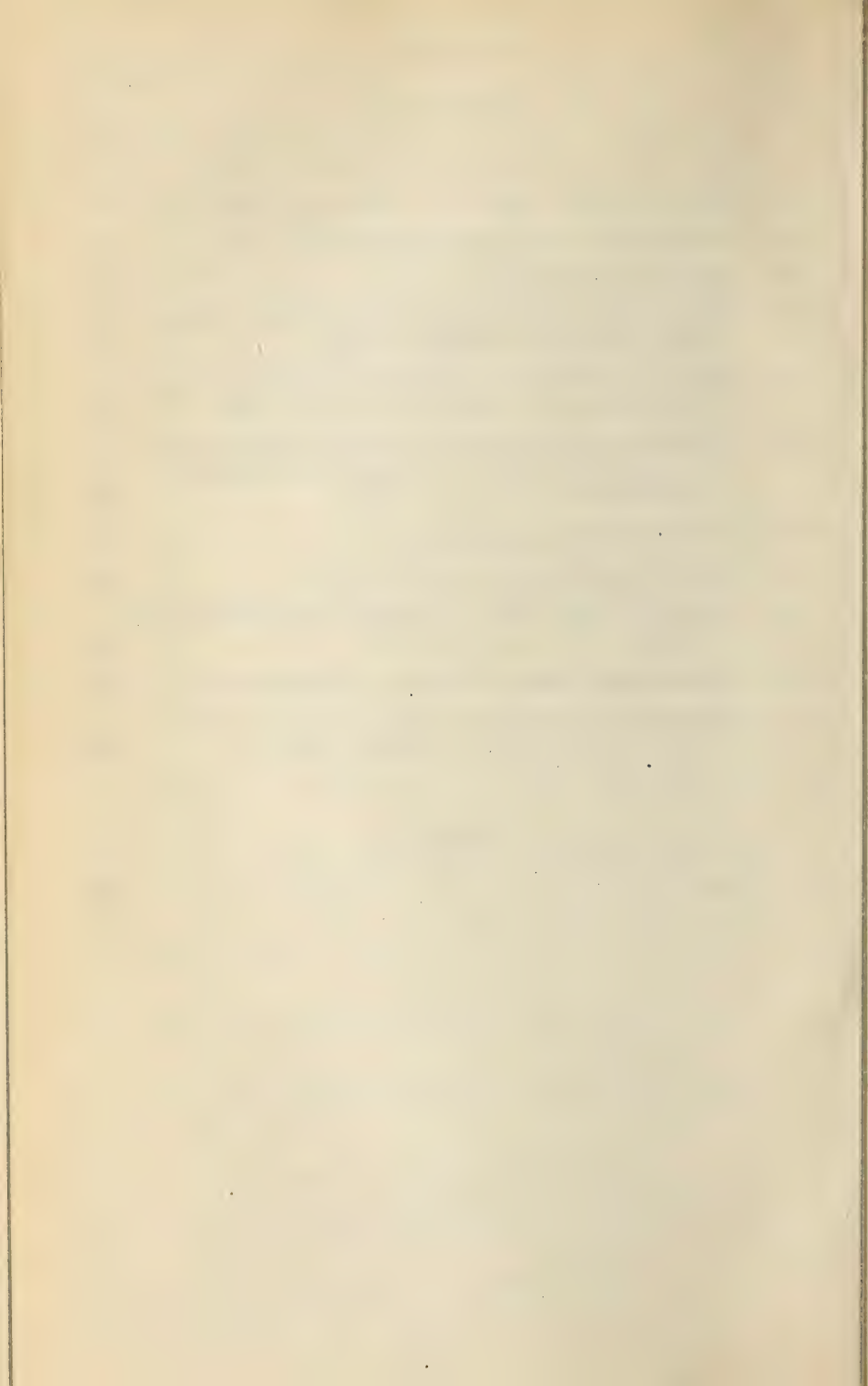
1. The first Military Service Act. Certificates of Exemption	56
2. The Meaning of Industrial Conscription	58
3. The Bill Amended in order to Prevent Industrial Compulsion	59
4. The Conversion of the Badge Certificate into a Certificate of Exemption, and the Exchange of W.M.V. and Admiralty Badges	62
5. The Revision of Badges and the Promotion of Dilution. March, 1916	65
6. The Cabinet Committee on Exemptions. Proposals to limit the Ministry's Control of Badges. April, 1916	66
7. The Second Military Service Bill. Proposal to make the Tribunals the Sole Authority for Exemptions. May, 1916	71
8. Provisions relating to Industrial Compulsion	74
9. The Inspection and Withdrawal of Badges. March to September, 1916	77
10. The Work of the Badge Committee.. .. .	80
11. Conclusion	83

APPENDICES.

	PAGE
I. Classes of Labour Ineligible for Enlistment. List A ..	89
II. Classes of Labour Ineligible for Enlistment. List D ..	91
III. The Munitions (War Service Badges) Rules, 1915 ..	92
IV. The Starred Occupations	95
V. Statistics concerning Badged and Starred Men Wrongfully Enlisted for Immediate Service	98
VI. Direction given by the Minister of Munitions under Section 2 (5) of the Military Service Act, 1916 ..	99
VII. List of Occupations Certified by the Ministry of Munitions in consultation with the Admiralty, under Section 2 (2) of the Military Service Act, 1916	100
VIII. Mr. Ellis Griffith's Amendment	103
IX. Return of Badged Men as on 27 July, 1916	104
X. Census of Badged Men, 10 October, 1916 (Industrial Groups)	105
XI. Census of Badged Men, 10 October, 1916 (Industries) ..	106
XII. Enlistments for the Regular Army and the Territorial Force. August, 1914, to December, 1916	107

INDEX.

Index	108
---------------	-----



CHAPTER I.

WAR SERVICE BADGES.

I. The Problem of Organising the State for War.

In order that the questions involved in the Limitation of Recruiting may appear in their true perspective, it is desirable to recall at the outset of this narrative the main factors upon which military efficiency in its final terms is dependent, and the chief difficulties which lie in the way of the full realisation of such efficiency.

The Great War has demonstrated the adaptability of the modern State under the stress of a life and death conflict and the limits within which national organisation can be accomplished. It has shown that a war between great industrial peoples with large reserves of fighting power becomes a war of attrition, unless early in the struggle one of the antagonists is overwhelmed by a military disaster. In the last resort whatever national energy is not required to maintain the health and efficiency of the people may be thrown into the conflict, provided that the spirit of the people is not broken by the sacrifices it is called upon to endure and the State is able to transform the surplus energy into military effort. Such a conversion would apparently be effected most rapidly and economically if the State could override by administrative action all private rights and obligations and coerce any individual who was reluctant to take his or her appointed place in the fighting organism.

If, therefore, a State were completely prepared for war, it would not only possess fleets and armies sufficient to impose its plan of attack on the enemy, but it would have a policy for organising the production of the country with the single purpose of developing to the utmost its military strength and endurance, a register of its adult population catalogued by age, physical fitness, occupation, industry and residence, and administrative machinery for deciding in what capacity each individual should serve the exigencies of the State.

In such a scheme of war economy priority would be given to the production of munitions, military equipment, and medical supplies, staple foods and necessary clothing, the manufacture of goods for export in so far as they were required to obtain necessary imports, the maintenance of efficient transport services by land and sea, the supply of light, heat and power, the construction and repair of tools, machinery and plant, the extraction of minerals, and the production of metals, chemicals and other materials. To these essential factors in fighting power must be added the retention of staffs adequate to

execute the functions of central and local government, including the maintenance of health, and to carry on such commercial and financial work as was indispensable for the distribution of necessities and the organisation of war output. Every activity which did not contribute to military efficiency would be curtailed and, if possible, stopped, since in war whatever is not essential is waste.

There is, however, a gulf between this conception of the State as organised for war and its execution. Victory is ultimately effected by the destruction of the armed forces of the enemy, but the breaking of the enemy's will to persist in the struggle may be hastened by the development of weaknesses in his social, political and economic life. The loss of a campaign may be repaired, but if the home front is broken in a war of attrition defeat is inevitable. Consequently, the increase of naval and military strength, in respect of men and armaments, is limited by the necessity of maintaining civilian as well as military morale. Hence the need for securing continuity of employment, avoiding discontent, and, above all, safeguarding the unity of the nation.

The restriction of unessential manufacture cannot, therefore, proceed more rapidly than the absorption into war industry of the workpeople affected, either by altering the nature of their product or by moving them elsewhere. But the transfer of labour is a complex and costly operation and a fertile source of trouble, even when the workmen are few and volunteers. It is doubtful whether industrial conscription could effect the movement of large numbers, since housing and transport difficulties would quickly involve a greater consumption of energy than was saved by the transfer. Moreover, compulsion may move a worker, but it cannot secure output. The discipline, which tradition confirmed by community in danger and hardship renders honourable in the field, cannot be transferred to the workshop, the shipyard, or the mine. There forced labour awakens all the evil associations of slavery, and becomes even economically indefensible. Nor should it be forgotten that the organisation of labour by the State means in practice decisions, subject perhaps to the right of appeal to a local tribunal, concerning individuals with capacities, habits and duties infinite in variety, given by junior officials who are bound by rigid instructions, and based on such information as can be reduced to the limits of a card index. For the State, therefore, to attempt directly to redistribute the labour of the country would almost certainly break down in administration, and even if it succeeded in its immediate purpose of reinforcing the essential industries, it would create a volume of discontent which could not but compromise the fighting strength of the nation. The State, in fact, could not without grave risk apply compulsion to labour beyond imposing on all men of military age the obligation of military service, and limiting the consumption of unnecessary goods by heavy taxation and the restriction of materials.

Nor again would it be safe to depress the standard of living accepted by large classes of the community. For not only would the fear, lest the change should become permanent, breed suspicion and

unrest, but men, though capable of actions which entail the highest sacrifice, find it hard to forgo for long the pleasures and comforts to which they are accustomed and to tolerate daily inconveniences and petty restrictions, when danger does not obtrude itself on the senses or excite the imagination. Callousness and inequality of suffering are inseparable from a long war, and no prudent Government dare neglect to take them into account. An attempt, therefore, to limit consumption to the bare necessities of existence would diminish military efficiency by causing discontent rather than increase it by diverting productive energy from unessential goods.

Finally, it is imperative in war to maintain the unity of the nation. Not only the reason for going to war, but the methods of organising the military resources of the State must receive the whole-hearted support of the people. Except against small and irresolute minorities a policy of coercion will defeat itself. A free and independent people, jealous of bureaucratic interference, will only accept compulsion when they are convinced that the sacrifice of their liberty is necessary for their security. A wise Government, therefore, will await the moment at which the necessity for overriding private rights can be proved, rather than provoke discord by imposing sacrifices which large classes of the people do not believe to be unavoidable.

II. The Advantages of Voluntary Enlistment in the First Year of the War.

The transition from peace to war in 1914 presented peculiar difficulties to a democratic island people unprepared for a continental struggle of unlimited liability. The Government had neither the information nor the plans nor the administrative machinery for reorganising the whole country as a single fighting force. In particular, no provision had been made for selecting those men for military service whose work in civil life was not indispensable for the successful prosecution of the War. Large classes of the people were traditionally opposed not only to conscription, but to every interference with personal liberty which was not proved to be necessary for the defence of the Realm. It was generally believed that victory would be ensured, and the obligations of the country would be satisfied by maintaining the command of the sea, safeguarding the island against raids, providing to the utmost the needs of the Allies for money, equipment and supplies, and reinforcing their armies by a small though efficient expeditionary force. The Government's request on 6 August for power to increase the Army by half a million men, and the terms of enlistment announced the following day—"general service for a period of three years or until the war is concluded," were regarded rather as an insurance against accidents than as evidence of the gravity of the situation. Nor was public opinion enlightened as it might have been by a disclosure of the magnitude of the reverses which befell the French and Russian Armies in the autumn of 1914.

Thus the vital importance of maintaining the unity of the nation together with its unpreparedness for any form of compulsory service

left the Government no alternative but reliance on voluntary effort to carry out the mobilisation of the country for war.

The magnificent response of the Empire to Lord Kitchener's call for men, the unexpected difficulties encountered in providing them with arms, and the shortage of experienced regimental and staff officers, removed the question of military conscription from practical politics until the first year of the War had drawn to a close. Compulsion indeed had already been threatened, but only to secure the transference of skilled labour to the armament works, where it was most urgently needed, and to promote efficiency and discipline. As late as 16 June, 1915, Mr. Lloyd George said to the representatives of the Trade Unions¹ :—

“ I cannot see any necessity for military conscription, and I said so in Manchester. You have more volunteers than you have rifles to put in their hands at the present moment ; and I am sorry to say, even with all the help you can give me, we have more volunteers than we can put rifles in their hands for I dare not tell you how long. . . . As far as I can see, I do not think there is any immediate danger of conscription, and I shall be very surprised if we do not get through without it.”

But as the summer of 1915 advanced, it became evident that if the country was determined to maintain the largest force possible in the field without impairing the production of munitions and other services of national importance, compulsory powers would soon be necessary not merely to obtain those whom domestic or other ties held back from the hazardous duties of military service, but also to retain in civil work those who were indispensable for sustaining the life of the country, supplying the needs of the Allies, and furnishing the most formidable armament for the Navy and the Army. The voluntary efforts of individuals, however well directed by the Government, could not accomplish the last stage in the mobilisation of the country's fighting power. And that this stage must be traversed was demonstrated by the succession of disasters in Russia, the strength of the German lines in France, and the failure of the British arms in Gallipoli.

It can hardly be doubted that the country was fortunate in relying on voluntary effort throughout the first year of the War. The maintenance of the unity of the nation was a military asset of the first importance to the Allies. If that unity had been broken, the breach must have widened as the struggle became more severe ; and compulsion without proved necessity would have antagonised Labour if not other sections of the people. As it was, the Government told the people what was then required, and left the individual to adjust his public and his private obligations.

Mistakes no doubt were made. Men were accepted for military service who could ill be spared from the workshops. But such mistake might not have been avoided under a compulsory system, since they

¹ HIST. REC./R./300/5.

were due primarily to the fact that some of the fundamental needs of the country were hardly envisaged in the early months of the War. The submarine attack on merchant ships and its effects on the supply of food and materials were, perhaps naturally, not foreseen. Nor was it realised that the metal and chemical industries were no small part of the fighting resources of the country, and should be used and developed to the utmost in order to destroy the armed forces of the enemy. A hasty scheme of compulsion, dominated by the popular demand for equality of treatment, might have drawn as heavily as voluntary enlistment on the reserves of skilled labour. It would certainly have checked the universal eagerness to adapt the machinery of peace to the conditions of war. For the initiative and enthusiasm of voluntary effort cannot survive in the atmosphere of compulsion.

On the other hand, the appeal of the Government to the courage and patriotism of the individual secured for the Army the keen and devoted service of the most spirited and adventurous men, and avoided that resentment, however short-lived, with which a self-reliant and independent mind naturally meets compulsion. The answer to the call demonstrated to the world that the Government was supported by the whole country. At the same time the Government escaped the disintegrating criticism which administrative blunders, though relatively few and pardonable, and the imposition of unequal sacrifices must provoke when the State attempts to assign particular duties to individuals and enforce their performance.

III. The Admiralty and War Office Lists of Firms and Occupations Exempt from Recruiting.

In the early months of the War no definite measures were taken to limit recruiting for military service; and even after such measures were sanctioned, no single administrative body was set up in order to carry them into effect.¹ The War Office, following out the principle of the voluntary system, held that no willing recruit should be refused the right of serving in the Army. They naturally and rightly regarded the formation of the new armies as their first duty, and saw that any attempt to discriminate in favour of particular classes of workmen, firms or industries would open up claims for equal treatment on the part of others similarly placed, which could not but perilously limit the field of recruiting. Moreover they believed, and subsequent experience has proved their belief well-founded, that the substitution of female and other non-recruitable labour for men of military age and fitness, the turn-over from commercial to Government work, and the curtailing of the production of comforts and luxuries for the home market presented greater opportunities for making good the loss of men even in the essential trades than was realised or likely to be realised except in the face of necessity. On the other hand, the

¹ An account of the measures taken to limit the enlistment of munition workers will be found in Vol. I., Part II., Chap. I., Sect. 2 and Part III., Chap. V., Sect. 7.

magnitude of the scale on which munitions could be effectively used was not at first apprehended, nor did the military authorities foresee how large a call the demand for munitions would make upon the skilled men in the metal and chemical industries, and upon the capacity of the country to produce materials and machinery for their manufacture.¹

The difficulty of dealing comprehensively with the limitation of recruiting was increased by the fact that no accurate statistics were available either of the skilled men who had enlisted or of those who were left. The attestation papers of the recruits no doubt contained some information about their previous occupations, but this was frequently vague if not misleading, and much labour would have been necessary to collect and digest it. The Board of Trade's periodical reports on the state of employment showed how far recruits had been drawn from the several industries, but gave no indication whether they were skilled or unskilled, pivotal men or labourers, clerks or mechanics. Consequently all estimates of the number and classes of men available for military service involved a large margin of error and were only convincing to those who approached the question with preconceived opinions.

Before the close of 1914 the great armament firms complained that their work was being disorganised by recruiting for the Army. But the Admiralty was the first Department of State to press for a comprehensive protection of the labour essential for their work. This was intelligible, inasmuch as they only were familiar with the intricate and far-reaching problems involved in the production of war material of the highest quality on a large scale. The limitation of voluntary enlistment naturally took two forms, instructions to recruiting officers not to accept workmen employed by certain firms without their consent, and the distribution to the men of some token which would prove to their neighbours and themselves that they were engaged on war service. As the signs of complete breakdown in their munitions programme accumulated the War Office found it imperative to follow in the steps of the Admiralty.

Accordingly, in the early part of 1915 both Departments drew up lists of contractors whose employees should not be accepted for military service "without the written consent of a responsible member of the firm." On 12 May, 1915, the War Office, acting on a recommendation

¹ It may be observed that the list of trades exempted from recruiting, which was issued to recruiting officers on 12 May, 1915 (see Appendix I.), did not cover iron ore miners, blast furnacemen, workers in puddling furnaces or iron and steel rolling mills, steel manufacture and smelting, tube manufacture, wire-drawing or iron founding, although the German output of iron and steel before the War was nearly double that of Great Britain and the Allies were largely dependent on Britain for steel owing to the German occupation of Belgium and Northern France. In this connection it should also be noted that metals were brought within the definition of munitions in Section 3 of the Munitions of War Act only by an amendment in Committee, and the materials essential for the manufacture of explosives were not covered by that definition.

of the Munitions of War Committee, issued the following instructions to all recruiting officers¹:—

“As a temporary measure, the necessity for which arises from the immediate and urgent need for the increased production of munitions of war, no man in any of the classes of labour mentioned in Lists A and D and no man employed by one of the firms mentioned in Lists B.1, B.2, B.3, or C are to be accepted for enlistment.

“Recruiting officers and recruiters are to take no action, either by advertisements, posters or word of mouth, with a view to inducing any of the men referred to above to enlist, and men who present themselves for enlistment should be carefully questioned, if any doubt exists, in order to ascertain if they are ineligible under that paragraph.”

List A specified certain skilled trades in which there was a shortage of labour required for the production of munitions of war.²

List D covered skilled trades and occupations specially concerned with work for the Admiralty in seaport towns.³

Lists B.1, B.2, and B.3 contained the names of firms engaged in the production of warlike stores for the Departments of the Master-General of the Ordnance and the Quartermaster-General, and for the Military Aeronautics Directorate respectively. These lists, which included both main and sub-contractors, were drawn up on the recommendation of the Director of Army Contracts after confirmation by the Directors of the Departments concerned. The Adjutant-General was also frequently, if not always consulted.

List C contained the names of firms engaged on work for the Admiralty. When a firm was placed on this list it received the following letter from the Secretary to the Admiralty⁴:—

“I am commanded by My Lords Commissioners of the Admiralty to inform you that the name of your firm has been placed on the list of those firms whose workmen, if employed on skilled technical work in which they cannot be replaced, may not be recruited for active service except on certificate from their employers that their services are not indispensable for the due performance of Admiralty work The discretion thus given to your firm carries with it a corresponding responsibility. Every care should accordingly be exercised so as not to hinder any man who desires to enlist if his services can be spared without detriment to Admiralty work.”

The lists of barred trades and selected firms were not, however, sufficient to prevent the continual disorganisation of munitions work by the loss of pivotal men. Sometimes eagerness to fight, more often perhaps an ignorant public opinion which stigmatised every young

¹ Gen. No. 6/5166 A.G.2.B.

³ See Appendix II.

² See Appendix I.

⁴ C.P. 40603/1915.

man not in khaki as a shirker, drove men who could only be replaced with difficulty, if at all, to evade the recruiting regulations and enlist. Sometimes again the genuine desire to be engaged on recognised war work, sometimes the allurements of the wages offered by the armament firms disguised under the pretext of such a desire, induced men to leave their work on machine tools or essential materials and take up the production of guns or ammunition. To secure greater stability it was necessary to give the workman an outward and visible sign that he was engaged on war service.

Moreover, although the War Office instructions of 12 May to recruiting officers were clear and unqualified, the number of the lists rendered the instructions difficult to carry out. By July there were four principal lists of firms and four supplementary lists, and the B.2 list was subdivided into 29 sections. In all they covered some 4,000 firms. Unless, therefore, each recruiting officer made for himself a consolidated list of the firms in his area, it was almost inevitable that he should overlook firms which had been placed on one or other of the exempt lists. Possibly also the completeness of the exemption granted (a completeness not contemplated by the Admiralty nor warranted by the facts, since it covered many men who were neither irreplaceable nor engaged on Government work) militated against its rigid observance by the recruiting officer. Some simple and individual mark was therefore necessary in order to make the exemption intended for the munition worker a reality.

IV. The Issue of Badges by the Admiralty and the War Office, January to July, 1915.

Towards the end of December, 1914, the Cabinet sanctioned the issue of war service badges by the Admiralty, which thereupon took steps to distribute them to the Royal Dockyards and firms on their list of contractors. The firms were informed¹ that "the issue of the badge is to be restricted to those employees who from their experience and skill are absolutely indispensable for the rapid and effective execution of work upon H.M. ships and armaments. . . . Employers are earnestly requested to exercise a proper discrimination in this matter, and to co-operate in securing to the utmost extent practicable that the badge is not issued to any person who could be spared to join the Colours if he so desired. . . . A register should be carefully kept of the names of all persons to whom the badges are issued." Special emphasis was laid on the regulation that "all persons to whom badges have been issued must, in the event of their discharge or of their ceasing to be employed on H.M. ships and armaments, be called upon to surrender their badges." It was also laid down that under no circumstances must a badge be transferred from the recipient to any other person.

Unfortunately, these badges were unnumbered and unaccompanied by certificates of identity. Some of them no doubt fell into the hands of improper persons; many were lost; and since the Admiralty did

¹ HIST. REC./R./322/34.

not require a nominal roll of the men to whom they were issued, some firms did not distribute them with the care which the Admiralty enjoined. Indeed the movement of labour¹ rendered the fulfilment of their instructions impossible in a large establishment unless special arrangements were made for the purpose. But the need of a staff to deal systematically with labour questions was not generally appreciated at this time.

Nevertheless the Admiralty badge undoubtedly furthered the execution of Admiralty work, and incidentally rendered valuable service to the production of munitions for the Army. For the Admiralty conceived the problem as a whole, and realised that armaments could not be produced unless the output of materials, plant and machinery were safeguarded. They therefore gave recognition to the primary industries, when a deaf ear was turned to them elsewhere. By the end of July, 1915, they had issued some 400,000 badges.²

In March, 1915, the War Office began to issue war service badges. At first these were confined to the technical workers employed by the Royal Factories and the recognised armament firms on guns, carriages, small arms and ammunition for the British Government. The term "technical worker" was intended to include "all skilled draughtsmen or other technical assistants in the office, the supervising staff and all skilled workmen or semi-skilled workmen, but not to include the grades of labour usually classed as unskilled."³ The firm was invited to submit the name of each man who came within the above definition to the War Office together with other particulars concerning his age, nationality, date of joining, and the grade and class of work on which he was employed. If he was approved, he received a certificate signed by Lord Kitchener "in token that his services are urgently required in the manufacture of Ordnance War Material for the defence of the Realm, in which service he is required to exercise *diligence* and *faithfulness*." The certificate remained the property of the War Office, to be returned if the holder ceased to be employed by the firm or on British Government work; and it was the duty of the firm to initial it each month. At the end of the War the holder would return the certificate to the War Office and receive a bronze medal, if his service should be approved as having earned this distinction by diligence, good work and conduct. In addition to the certificates official badges were issued to those men of military age whose names were brought forward by their employers as being indispensable to their armament production and who by the acceptance of the badge undertook to remain in their civil employment to the end of the War. The badges were numbered and remained the property of the War Office, to be returned under the same conditions as the certificates.

Subsequently in May the War Office extended the issue of badges

¹ For example, 9 Clyde shipyards, which employed 20,039 men on 31 March, 1915, and 21,329 on 31 December, 1915, took on 15,054 men in the interval, notwithstanding the requirement of leaving certificates during the last five months of the period. HIST. REC./R./340.1/3.

² C.P. 54834/15/X.36741.

³ 114/Gen. No./5377.

to certain other firms in order to protect men engaged on urgent munitions work from being taunted in the streets as "shirkers and slackers." The badge was intended to show that the man who wore it was willing to do his duty in any capacity, but was required for the time to remain at his trade. In order to guarantee the genuineness of this profession, the badge was granted only if the man undertook to enlist if called upon. Along with the badge he received a certificate signed by the Master-General of the Ordnance, "to indicate that his services are urgently required at present in his civil capacity, and that he is not required to enlist at present, but will do so at any future time if he is called upon by the proper authority."

To organise this work a new branch of the Master-General of the Ordnance Department was set up, under Major-General Mahon, at 29, Abingdon Street.

By the end of July, 1915, 79,738 badges had been issued by the War Office. Of these 5,671 were granted to men who pledged themselves to enlist if called upon, the remainder going without any such obligation to the Royal Factories, the armament firms and certain aircraft and explosive manufacturers. It is significant that 57,953 badges (nearly 73 per cent. of the total issue) were received by the Royal Factories and five armament firms, whose employees would naturally be less subject than other munition workers to the pressure of the recruiting officer, public opinion, or conscientious scruples concerning the nature and importance of the work on which they were engaged. To this extent, therefore, the War Office issues contributed little to the solution of the problem for which the badge had been devised. The breakdown of the ammunition programme was due not to the shortage of men capable of performing the final processes of manufacture, but to disorganisation nearer the basis of production, and in particular to the failure of sub-contractors to deliver machine-tools and other necessary plant.

It is possible that in time badges might have been granted to men undertaking to enlist if summoned, on a scale less inadequate to the needs of the situation. But this scheme was certainly unpopular while it lasted. Men were not willing to undertake a hypothetical obligation. Employers distrusted the recruiting officer and feared that their men might be called up to meet some temporary or local deficiency in the number of recruits while they were heavily engaged on Government contracts. Many workers regarded the scheme as an indirect kind of conscription and resented it. Besides, it was well known that such conditions were never attached to the Admiralty badge and not always to the War Office badge. An additional difficulty arose from the restriction of badges to firms on the exempt lists. It was therefore necessary to place a firm on one of these lists before an application for badges could be considered. This not only involved considerable delay, owing to the necessity for consulting various departments, but the War Office was naturally averse to such additions in view of the total exemption given by the instructions of 12 May.

Owing to the difficulty of obtaining official badges many firms resorted to the issue of a private badge. Not a few obtained what they interpreted as an authority from the War Office for such an issue. For they were informed that the War Office, though unable to grant official badges, saw no reason why they should not issue a badge of their own to their employees, provided that it conformed to the Defence of the Realm Regulations, and did not bear on it the Royal Cypher, the Royal Insignia, the letters O.H.M.S., or any other mark intimating that it was issued on the authority of the War Office. Many firms submitted their badges to the judgment of the War Office, and obtained the negative approval that the War Office took no objection to their issue. The private badges of well-known firms undoubtedly did something to satisfy the demands of public opinion, though they were naturally ignored by the recruiting officers. At the same time, their indiscriminate and wholesale issue did not a little to bring the official badges into disrepute.

Notwithstanding these criticisms, it must be recognised that the procedure laid down by the War Office for the issue of badges was sound ; and in so far as the Ministry of Munitions subsequently departed from it, the departure was regrettable, though probably under the circumstances, which were very urgent, necessary. It was right to number the badges, to issue certificates with them, and to insist that they remained the property of the War Office. It was right also to make searching enquiry into the firm's contracts and the proportion of time spent on war work by the men for whom badges were asked. It was probably right to require, before any issue of badges was authorised, a list of the men with their ages, trades, and a statement of the grade and class of work on which they were individually engaged. It is open to argument whether badges should have been restricted to men of military age. In view of the fact that badges were already issued by the Admiralty and the War Office without asking for a promise to enlist, it was a mistake to introduce this condition for the firms which stood in greatest need of protection. But even in this matter the policy of the War Office erred only in that it was premature and novel. For it was largely realised in the Derby campaign six months later. Finally, by the preparation of the lists of barred trades and of the B.1, B.2 and B.3 lists of firms the War Office afforded an invaluable foundation on which the larger policy of the Ministry of Munitions might be built.

V. The Provisions in the Munitions of War Act, 1915, relating to Badges.

When the Ministry of Munitions was established, it recognised that one of its first duties was to prevent the loss by recruitment of the indispensable men engaged on munitions and the materials, plant, and machine tools required for their production. The number of skilled men in the trades essential for the output of munitions who joined the Forces as reservists or recruits during the first year of the War is not known. But more than one-fifth of the males employed

in the industries especially concerned had enlisted. Indeed in those very industries voluntary recruiting had been most active. Although the men who had gone had been to some extent replaced, the numbers employed had contracted in all the important groups with the exception of explosives and small arms manufacture and shipbuilding.

ENLISTMENT IN CERTAIN INDUSTRIES.

August, 1914, to July, 1915.¹

INDUSTRIES.	Estimated numbers of males employed in July, 1914. ²	Percentages of numbers employed in July, 1914.		Percentage of males on Government work, July, 1915.
		On Service July, 1915.	Contraction (—) or Expansion (+), July, 1915.	
Coal and other Mines ..	1,167,000	21·8	— 15·5	—
Iron and Steel	302,100	18·8	— 3·4	80
Wire-drawing, Anchor, Chain, etc.	55,300	19·7	— 4·5	80
Engineering	525,600	19·5	— 3·2	80
Electrical Engineering ..	83,500	23·7	— 5·8	85
Shipbuilding	174,000	16·5	+ 10·8	85
Cycle, Motor, Carriage and Wagon Building	179,500	22·3	— 11·4	60
Small Arms	7,000	16·0	+128·2	—
Scientific Instruments ..	14,000	17·7	— 2·3	70
Other Metals (Smelting, Rolling and Working)	76,500	20·8	— 10·0	75
Chemicals and Explosives ..	159,000	23·8	— 0·1	40
Building	920,000	19·8	— 23·4	20
Cotton	274,000	17·5	— 14·6	10
Woollen and Worsted	134,000	12·5	— 2·0	45
Boots and Shoes	110,000	16·4	— 3·6	45
Leather	72,000	21·2	+ 6·9	65
All Industries	6,163,000	20·2	— 12·1	42

These figures give some indication of the extent to which the munitions industries were affected by enlistment and the loss was made good by the employment of boys and elderly workmen and by the attraction of men from other trades and occupations. But three considerations must be borne in mind. First, the figures refer to all persons employed in connection with the industry, whether mechanics, labourers or clerks. Secondly, the proportion of men of military age varies from industry to industry, being highest in those industries which have developed most recently or make the greatest demands on physical strength and endurance. According to the 1911 census,

¹ See Board of Trade *Report on the State of Employment in the United Kingdom in July, 1915.*

² The figures in this column are taken from the Board of Trade's *Report on Employment for April, 1918.*

the proportion was as high as 68 per cent. in the motor and cycle trade and no more than 46 per cent. in hosiery. For all industries the percentage was about 55. Finally, it must not be forgotten that the figures of enlistment often give only a faint indication of the loss of efficiency caused by the sudden withdrawal of pivotal men or even ordinary workmen. Subsequent experience has proved that production can be maintained in spite of large drafts on the male labour ordinarily employed, provided that due notice is given in order to make the necessary adjustments. From the industrial point of view, the chief objection to recruiting in the early months of the War was its sudden and incalculable interference with the delicate mechanism of production.

In order to prevent the further disorganisation of munitions work, the Ministry decided to systematise and extend the issue of war service badges. For this purpose it was necessary to obtain statutory powers in order to control the wearing of badges, the value of which was already impaired by the extensive and indiscriminate issue of private badges, and to deal with the limitation of recruiting, so far as munitions work in all its ramifications was concerned, on definite and uniform principles.

The Munitions of War Act contained the following provisions :—

“ The Minister of Munitions may make rules authorising the wearing of badges or other distinctive marks by persons engaged on munitions work or other work for war purposes, and as to the issue and return of any such badges or marks, and may by those rules prohibit the use, wearing or issue of any such badges or of any badges or marks indicating or suggesting that any person is engaged on munitions work or work for war purposes except as authorised by those rules. If any person acts in contravention of, or fails to comply with, any such rules, he shall be guilty of an offence against this Act and shall be liable in respect of each offence to a fine not exceeding fifty pounds.”

This clause was introduced as a Government amendment in Committee on 1 July. In answer to some criticism of it, Mr. Lloyd George replied¹ :—

“ I consider this a very important clause and certainly will not withdraw it. A great many men have been withdrawn from the engineering works of this country, and the production of munitions has been considerably crippled. The absence of some systematic method of giving badges to men is largely responsible for that. In addition to that a good many badges have been given by people on their own authority to persons who ought never to have received them. In some cases the badges have been discredited. These things ought to be not merely systematised, but placed on a perfectly regular official basis. . . . The sooner the power of issuing badges is taken

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXII. 2089.

away from everybody but the State the better. . . . I venture to say that unless the badges are confined to persons who are authorised and have a real claim to wear them—unless that is done in a short time—there will be disorganisation which will result in harm both to recruiting and to munition work."

VI. The Ministry's Scheme for the Issue of Badges.

Correspondence with the Admiralty and the War Office.

On 5 July, 1915, the Ministry sent a letter¹ to the Admiralty and the War Office, outlining a scheme for the limitation of recruiting by the issue of war service badges. The scheme was twofold. On the one hand it was proposed to issue a badge to every man employed on work for war purposes in a controlled establishment, and to every man employed in a Government dockyard, arsenal or establishment, the Board of Management of which was nominated by the Government, and to instruct recruiting officers not to accept for enlistment any man so employed. On the other hand a badge was to be granted to every man following a trade in which there was a proved shortage of labour for Government work, provided that he was doing work for war purposes. If the man was not so employed, the recruiting officer should nevertheless refuse to enlist him, but refer him to the Labour Exchange, for transference to war work. All recruiting officers should be instructed not to accept for enlistment men possessing badges.

It was pointed out that the scheme did not provide for the keeping by the Ministry of Munitions of a nominal roll of the men to whom badges were issued, nor for the numbering of the badges, nor for the issue of a personal certificate to each man to whom a badge was granted. Such conditions, it was thought, would introduce an elaboration into the scheme which was incompatible with the genuine need for the speedy issue of badges to protect men engaged on Government work from the efforts of recruiters. To prevent the abuse of the system it was thought sufficient to rely on the penalties provided under the Munitions of War Act. Moreover, it was proposed that badges should not be confined to men of recruitable age or made conditional upon a promise to enlist. Apart from the objections in principle to the requirement of this pledge, the Minister was not aware of any legal means whereby the fulfilment of such an undertaking could be enforced. Finally badges should be issued only to controlled establishments or to firms on the Admiralty or War Office exempt lists.

It was anticipated that this scheme would extend rather than restrict the field of recruiting. Only the controlled establishments, which were then thought unlikely to exceed 200 in number, would be entirely exempt. From all other firms the recruiting officer would be entitled to take every man who was not badged.

On 14 July the Ministry proposed² the following additions and amendments to their scheme. All the badges issued by the Ministry

¹ M.W. 6202. B.11496.

² M.W. 17234/3. B.11496.

of Munitions should be numbered and accompanied by certificates made out to each man authorised to wear a badge. The Admiralty and War Office lists of exempt firms should remain in force until the badges had been issued to their skilled men engaged on war work. It would be necessary to revise these lists so as to include machine tool, explosive, chemical, and other firms hitherto left out. The rules, it was explained, had been so drawn as to enable skilled men employed in the performance of services urgently required in connection with the supply of munitions of war (such as transport and the supply of power) to be protected in the same way as skilled men employed in the actual manufacture of munitions. Finally, it was suggested that a committee, representing the Admiralty, War Office (Director of Recruiting and Quartermaster-General) and the Ministry, "should meet periodically to discuss any new procedure in connection with badges, or to decide any doubtful cases as to the issue of badges to firms applying for them."

On 20 July the Admiralty acknowledged¹ the proposals of the Ministry. It was agreed to transfer the Admiralty contractors to the Ministry so far as the issue of badges was concerned, but to retain the Royal Dockyards and Admiralty establishments, the civilian crews of vessels owned, chartered or requisitioned by the Admiralty, dock labourers and a few other miscellaneous services. The numbering of the Admiralty badges already issued should be postponed.

"Their Lordships consider it very undesirable to interfere with the distribution which has already taken place. The distribution has been made by the Admiralty with the greatest care, and is regarded as constituting an absolutely essential means of preventing delay to Admiralty work by the withdrawal of workmen from such work to the fighting services. Of course, some measure of evasion is unavoidable under the voluntary system, but it is strongly felt that the existing protection is valuable, and should in no way be weakened. In this connection attention is drawn to the fact that successful shipbuilding and equipment involve the unhindered operations of an exceedingly large and widely distributed number of firms, many of whom though small are of first-class importance."

"Work for war purposes" must be widely interpreted so as to cover such ships or services as might from time to time be designated by the Admiralty to rank as war work, *e.g.*, certain refrigerated meat ships, oil tank vessels, trawlers, or other special classes of tonnage.

The list of barred occupations should also be elastic, and include every man employed on work for war purposes in any docks used by the Admiralty and every man employed on vessels chartered or requisitioned by the Admiralty, and every man who, in the opinion of the Minister of Munitions, could not be spared from his employment.

"The experience of the Admiralty is that although the badge is nothing but an anti-recruiting device, it is regarded

¹ C.P. 54834/15/X.36741.

more or less as a decoration, and it is, therefore, thought that there is a good deal to be said for issuing it irrespective of age or suitability for military service, in order to assist in the production of an *esprit de corps* among men who work alongside each other in the same factory."

"The Admiralty are unable to concur in the withdrawal of List C. from the Instructions to Recruiting Officers, that is to say, it is essential to maintain the right of any firm certified by the Admiralty to be doing important Admiralty work to have protection for their indispensable men. It is not sufficient for certain occupations only, however complete the list may be, to be protected, because the firm as the responsible party for the fulfilment of the Government contract must be recognised by the Government as having a right to refuse certificates that their men can be spared for the Army. . . . It is most unlikely that any abuse of this right of protest could seriously interfere with voluntary enlistment, but in the event of such a case arising, it is suggested that the recruiting officer might call the attention of the local Munition Area Office to the matter, so that it could be investigated impartially."

The Director of Navy Contracts Department would be willing to consult as necessary on procedure in connection with badges, and to give, as a matter of routine, decisions on future applications for badges where Admiralty work was concerned.

On 21 July the Army Council acknowledged¹ the proposals made by the Ministry of Munitions. They began by emphasising the need for men.

"Under present conditions the difficulties of obtaining recruits in sufficient numbers to build up reserves for the large formations now maintained and projected, and to repair even normal wastage, are very serious. Constant watch has to be kept on the monthly, weekly, and even daily intake of recruits. Admittedly munitions and equipment of all sorts must be provided on large scales, but the prime need must always be for men to use them."

Great importance was therefore attached to the establishment of a standing committee to co-ordinate the competing claims of the authorities responsible severally for the supply of men and the provision of the necessary equipment and munitions. The proposal to issue badges to the men in approved occupations employed by firms on the exempt lists appeared to the Council "extremely wide." The issue of badges should be strictly limited to firms of great importance. The occupations to be approved and the firms to receive badges should be decided by the committee. In controlled establishments badges should be restricted to men in approved occupations, and "it should be clearly intimated to the firms that they should by degrees replace all recruitable

¹ 27/Gen. No./4463/A.G.2.B.

men by substituting for them boys, men over age or unfit, or women, the badges being withdrawn."

On 23 July the Ministry replied¹ to the War Office, stating that the Minister of Munitions "realises that the primary need of the Army is the need for men, and in the scheme which he has in mind for the issue of badges, his sole object is to secure that the work of the Army shall not be unduly handicapped through shortage of munitions due to lack of the services of the men indispensable for their manufacture." With respect to the committee, he hoped that the Army Council would not insist on the lists of firms being revised and the lists of approved occupations settled in detail by this committee before the work of issuing badges could be commenced.

"It is evident to the Minister from a great mass of testimony which has been received from all quarters that the need for securing protection from recruiting by means of the issue of badges for the men engaged in a great number of occupations essential to the supply of munitions is urgent and pressing, and it is imperative that effective action to deal with the problem should not be longer delayed.

"He considers, therefore, that the executive authority to decide what are to be 'approved occupations' and which are to be the firms whose employees engaged in the 'approved occupations' are to receive badges must rest with him, though he will always welcome and give due weight to advice he may receive from the committee. It would clearly be impracticable to submit to the proposed committee every proposed variation in the lists of firms or of approved occupations."

The Ministry agreed that badges should be issued to controlled establishments for those only of their employees who were engaged in approved occupations.

To this letter the Army Council replied² on 27 July, stating that they were prepared to agree "that on the Minister of Munitions taking over the work of dealing with the issue of badges, he must be the executive authority to decide finally both the list of approved occupations and that of the firms whose employees are to receive badges, nor, after the general scheme has been decided, on which both lists are to be framed, do the Council urge that every modification of either should be referred to the Committee." They hoped, however, that the greatest possible weight might always be attached to the Committee's advice.

VII. The Munitions (War Service Badges) Rules, 1915.

On 26 July, 1915, the Ministry of Munitions took over the administration of badges from the Admiralty and the War Office, together with the organisation set up for that purpose by the latter at 29,

¹ M.W. 25596/2. B.11496.

² 27/Gen. No./4463/A.G.2.B.

Abingdon Street. The sub-section of the Secretariat to which this work was entrusted, under the direction of Professor W. G. S. Adams, was thus separated not only from the Supply Department at Armament Buildings, on which depended most of its information concerning firms and the ramifications of munitions work, but also from the other branches of the Secretariat and Labour Department at 6, Whitehall Gardens. This local isolation was a serious obstacle to the free and constant consultation, without which sound administration was not possible.

Letters were immediately sent to the firms on the Admiralty and War Office lists of firms exempt from recruiting, informing them that the system of protecting the whole of the firm's employees from recruiting had been discontinued, and in future the official war service badge would be the only protection. Letters were also sent to firms on lists supplied by various departments of the Ministry, in particular to some 180 machine tool makers recommended by the Machine Tool Committee; to iron and steel, spelter, fuze and cartridge metal firms recommended by the materials department; to the principal electric power stations, to gas works extracting toluol, and to chemical firms and firms working by-product plants recommended by the explosives department. The letter was accompanied by a copy of the rules made by the Minister of Munitions, an explanatory circular and forms of application for badges.

The rules, which were issued as Provisional Rules on 23 July and became statutory¹ on 9 October, contained the following provisions :—

- (1) The employer of any persons engaged on munitions work or other work for war purposes may apply to the Minister for authority to issue war service badges to such persons.
- (2) The Minister may supply and authorise the issue of badges to all or any of these persons (on such condition as he thinks fit) provided that he shall not authorise the issue of war service badges to persons engaged otherwise than in a Government establishment, unless, having regard to the occupations in which such persons are employed, he is of opinion that their removal from their present employment is likely to prejudice the production, transport or supply of munitions of war, or the successful prosecution of the War.
- (3) A person to whom a badge has been issued shall surrender his badge to his employer on leaving his service or ceasing to be employed on war work.
- (4) The employer shall be responsible (a) for issuing the badges in accordance with the rules and the authority given by the Minister, (b) for requiring the surrender of the badge as soon as the person to whom it was issued ceases to be entitled to wear it, (c) for the custody of surrendered or unissued badges and their return, if so required.

¹ *Statutory Rules and Orders*, 1915. No. 1001. See Appendix III.

- (5) No person shall make any false statement for the purpose of securing authority to issue, or of obtaining, any war service badge.
- (6) All badges supplied by the authority of the Minister of Munitions shall remain his property.

The circular amplified the rules on certain points. Following the earlier regulation of the War Office, it limited the issue of badges to supervising staff, draughtsmen, or other technical assistants, and all skilled or semi-skilled workmen whose services were indispensable. Men belonging to the grades of labour usually classed as unskilled were excluded. The Army Council (it was stated) had instructed all recruiting officers not to accept for enlistment men possessing or authorised to possess badges. If badges were granted, the firm would be required to furnish a list of the men to whom badges had been issued within 14 days after their issue. Blank certificate forms would be sent with the badges ; on handing his badge to a workman the employer must also hand him a certificate with his name and the number of his badge filled in. A badge surrendered by a workman on his leaving his employment or being definitely taken off war work might be reissued to the man employed on war work in his place without further reference to the Ministry of Munitions. The employer must, on satisfactory evidence that a certificate had been accidentally lost, rendered illegible or destroyed, replace it by a new one. The term "munitions work" meant employment on the manufacture or repair of arms, ammunition, ships, vehicles, aircraft, or any other articles required for use in war, or of the metals, machines or tools required for that manufacture or repair. "In determining whether work not falling within the above definition can be held to be 'work for war purposes,' the Minister of Munitions will have regard mainly to the question whether the work is work on the production of any commodity or in the performance of any service which there are reasonable grounds for believing to be necessary to enable any contract with the Ministry of Munitions, the War Office, or the Admiralty to be fulfilled." Men to whom badges had been issued by the Admiralty or the War Office should retain them so long as they remained in their present employment. Finally employers were urged, alike in the public interest and in their own, so far as possible to employ for unskilled work men who were over age or unfit for military service, or women.

In making application for badges the employer was required to state what contracts, direct or indirect, were held for the Admiralty, War Office, or Ministry of Munitions, what deliveries had been made, how long the contracts would last, how many men were employed upon them and for what proportion of their time, and how many men were employed in the works. The number of men in each trade or occupation for whom badges were asked was then given. A responsible member of the firm was required to sign the following declaration, subject to a penalty of £50 for false statement :—

"I hereby certify that all the workmen for whom badges are applied for above are employed on war work, and I

undertake that I will endeavour to secure that, in the event of any of the aforesaid workmen leaving my service, or being employed otherwise than for war work, any badge issued to him shall be returned to me."

Applications for badges were made in duplicate. If the application was granted, one of the schedules was returned to the firm along with the Minister's authority to issue badges to the persons referred to on the schedule. A letter was also sent to the firm informing them that if they had issued private badges either with or without the permission of the Admiralty, or Army Council, such badges must be immediately withdrawn from everyone in their employ. They were also requested to furnish within 14 days a list showing the names, occupations and badge numbers of the men to whom badges were issued.

VIII. The Procedure Adopted in Dealing with Applications for Badges.

The Badge Committee held five meetings between 28 July and 22 September. The Director of Recruiting attended and also representatives of the Admiralty, the Army Contracts and Explosives Departments, together with the principal officers responsible for the administration of badges. It was agreed that the badge department should consult the Admiralty or the War Office, wherever firms were mainly engaged on their work, and should act on their recommendations. For medical supplies the National Health Insurance Commission should be consulted, and for railway material the Railway Executive. The issue of badges to coal miners, dock labourers and railwaymen was discussed. But no decision was reached, since it appeared impossible to discriminate between those who were indispensable for the production, transport or supply of munitions and those who were performing other essential services, while the Ministry was neither empowered to protect work of national importance nor possessed of the means necessary to verify claims advanced on that ground. It was, however, agreed that the Minister should provisionally authorise the private badge issued by the Railway Executive to their indispensable men. And, in the interest of munitions, badges must soon have been issued to certain collieries, if another method of protection had not been found, since the output of coke-ovens was already decreasing owing to short supplies of coal.

So far as work for the Ministry was concerned, the badge department was left to act at its own discretion. The Committee, constituted as it was and meeting at irregular intervals, could not give decisions either on the classes of firms or on the occupations which needed protection. The right answer depended on the evidence of experts familiar with the structure of the industry in question, and informed of the demand for its output. The Committee had not the time, even if it was otherwise qualified, to pass a reasoned judgment on such evidence. Consequently, it could not fulfil the *rôle* assigned to it

by the Army Council and advise the Ministry of Munitions how far to extend the protection of firms or occupations, nor could it co-ordinate the competing claims of the authorities responsible severally for the supply of men and the provision of the necessary equipment and munitions. The latter function indeed could only be exercised by the Cabinet or the War Committee.

If the Committee had been able to meet daily, like the Priority Committee for Materials, and had been attended by representatives of the various supply and labour departments, it might have done valuable work on test cases. An arrangement of this kind, especially if it had been supplemented by a strong body of technical inspectors, would perhaps have brought the following advantages. The same policy would have been followed by the Admiralty, the War Office, and the Ministry of Munitions, in dealing with the same or closely related industries. The immediate and prospective requirements for labour would have been better appreciated by all the departments concerned. The trades and occupations requiring protection would have been more precisely defined. Dilution and substitution would have been sooner and more widely understood, and might have been accelerated by a proper use of the badge. The Director of Recruiting would have been informed directly and authoritatively of the able-bodied labour necessary to produce the war material required. In short, more effective and perhaps less extensive protection would have been given to munition workers, and the friction between the supply, labour and recruiting departments, due primarily to ignorance of one another's needs and difficulties, would have been diminished. But no such arrangement was suggested; and if it had been suggested it would probably have been dismissed as impracticable. For not only were the supply departments working at the highest pressure on their own special problems, but in many quarters the badge was looked upon as a mere decoration, and the importance of using it to put the exemption of irreplaceable munitions workmen from military service on a sound and certain footing was not generally appreciated.

The procedure adopted by the Badge Department was as follows. First, advantage was taken of the work already done in marking out the sphere within which protection was necessary by using the Admiralty and War Office lists of firms exempt from recruiting. To these were added the lists of controlled establishments, and special lists of firms submitted by various departments, in particular those responsible for the supply of explosives, metals, electric power, machine tools, gauges and optical munitions. Applications from these firms with information concerning their main contracts gave a bird's-eye view of the munitions industries, and revealed in detail their complex relations, and, what was most important for the acceleration of output, the dependence of the large establishments on the work of small firms.

Secondly, members of the Badge Department kept in constant touch with Armament Buildings, especially with the departments above mentioned. Frequent interviews took place on the present and prospective demands for various products and materials, and on

their inter-relation. Many files were sent over for recommendation, but no attempt was made to obtain a recommendation for every issue of badges. Opinions were obtained on test cases, which the Badge Department applied at its discretion. Similar intimate and satisfactory relations were maintained with the Explosives Department at Storey's Gate. For all Admiralty work the Admiralty undertook the responsibility of investigating and recommending, as did the War Office for aircraft, mechanical transport, and military equipment and stores. At first they left some latitude to the Badge Department within which it could use its discretion, but gradually their recommendations became more precise, until the Department acted merely as their agent, except in so far as the Ministry of Munitions was also interested in the output of the firm under consideration.

Thirdly, the Badge Department obtained a large amount of information from interviews with the directors and managers of important firms, with whom their applications were discussed in detail.

Fourthly, the applications of a number of firms, mainly sub-contractors, of whom little was known by the supply departments, were sent for local enquiry and recommendation by the Labour Officers. Unfortunately, the Badge Department was precluded by its instructions from obtaining the assistance of any other inspectors. For there were only nine Labour Officers with ten assistants for the whole of Great Britain, and they had numerous other duties to perform. Consequently there was often great delay in obtaining their opinions. The work of the department would certainly have been improved and accelerated if the advice of all the inspectors and engineers attached to the Area Offices of the Ministry had been available. It was indeed hoped that each Area Office would form a corporate judgment on the munitions firms within its district to which the Badge Department could have appealed for guidance. But this hope was not realised.

Finally, much assistance was given by some of the Munitions Committees. The Sheffield Committee, in particular, met daily and scrutinised all local applications which were submitted to them endorsing and sending on those which they considered satisfactory. It was, of course, open to any firm to apply for badges directly. But badges were rarely issued without consulting the Committee, whose services rendered possible a comprehensive treatment of the steel industry, and adequate protection of small makers of special tool and crucible steels. The Leeds Committee also gave valuable help. But some of the Committees would do nothing because the issue of badges was not delegated to them, and others for all practical purposes dissolved after receiving the Minister's letter of 9 August.

IX. The Classes of Men to whom Badges were Issued.

In the attempt to determine the occupations in respect of which badges should be issued great difficulties were encountered. Labour in the munitions industries did not fall into sharply defined classes,

but ambiguities and hardly perceptible gradations appeared everywhere. Differences of local custom or works organisation varied the meaning of terms ; the same name was applied to men widely separated in capacity and experience. There was no simple and accepted criterion by which the claim to skill could be tested. Full membership of a few trade unions no doubt proved that an apprenticeship of some sort to a skilled trade had been served ; but these societies rarely covered the majority of the skilled men following the trade. Where the unions were strong, the receipt of the skilled man's rate might have been taken as a test ; but even there the provisions of the Treasury Agreement, which secured the full rate for up-graded labour, became a stumbling-block, and many important industries were ill-organised, or carried on in districts where the unions were weak. Moreover, although in some of the skilled trades every man was needed, in others, such as the wood-working trades, there was in 1915 no shortage. Even within the same trade specialisation precluded the transfer of men from a branch where work was slack to one in which the demand could not be met. Yet the claim to equality of treatment made it difficult to deal differently with skilled tradesmen in the same shop, and a factory might be upset by the loss of its maintenance men or other classes of labour, of which there was as yet no scarcity in the country.

Further, the work of the skilled man was, as a rule, dependent on the assistance of mates or helpers, whose experience made them difficult to replace without loss of efficiency or risk of accident. Even unskilled labour was very scarce in some districts, and several instances were brought to notice where the output was reduced because the skilled men had been taken off their proper work in order to move heavy material. In time such difficulties were often overcome by mechanical devices, which could be worked by an old man or a girl. But in 1915 production could not be delayed until handling appliances or conveyers were installed. Where, therefore, a firm made out a strong case badges were issued to experienced fitters' and erectors' labourers, to storekeepers, to fettlers and cupola men, and to others who were not reckoned in the ranks of skilled labour. This problem was most pressing in blast furnaces, in steel works and rolling mills, in tube works and foundries, in works engaged on the smelting, casting, refining and rolling of cartridge metal, spelter, antimony, lead, aluminium and other materials of vital importance. Here badges were issued to labourers, who by virtue of their training, experience or physical strength were indispensable for the production of war material and irreplaceable. In such cases it seemed useless to attempt to draw up lists of occupations, and the department appealed to the honour and discretion of the firm not to issue badges to any men who could be spared.

The problem how to deal with clerks was also very difficult. Badges were issued to the heads of the clerical departments in large establishments, and to men with technical knowledge, such as costs and material clerks, shipping clerks, rate fixers and progress men. For it was obvious that the withdrawal of such men would entirely

disorganise a large establishment. But badges were refused to clerks engaged in the ordinary work of the counting-house ; and firms were informed that for all such work women should be employed.

Badges were not confined to men of military age. This had already been settled when the Ministry took over the issue of badges from the War Office. The reasons were twofold. On the one hand, it was uncertain how far the military age might be extended ; as it was, for some special services men were accepted up to 45, and it was notorious that youths under military age were frequently enlisted. Indeed, in June, 1915, the North East Coasts Armaments Committee had passed a resolution asking that badges might be issued to the engineering and shipyard apprentices in order to retain those who were left. On the other hand, the badge was designed in part to settle the mind of the worker as an outward and visible sign to himself and others that he was engaged on urgent war work. As such it was as valuable to the older men and the apprentices as to the men of military age. The value and significance of such a device as the badge depend not on what is in the official mind which authorises it, but on the view which the general public adopts towards it. There is abundant evidence that the official badge was highly prized by men over military age, and gave the munitions firms a strong hold over the youths in their employ. But this extension tended to obscure the main purpose of the badge, which was devised to prevent the recruiting of the men necessary to secure the production of munitions.

X. The Value and Defects of the Badge.

The war service badge was a temporary expedient to limit voluntary recruiting. Whatever wars the future may have in store for this country, it will not be revived. But should the nation again have to fight for its existence, the necessity for exempting large numbers of men of military age and fitness from military service will not have diminished. On the contrary, as man's control over material forces grows, a more comprehensive and better adjusted system of exemption will be needed from the day of mobilisation to develop to the utmost the fighting power of the country. The popular demand for equality of sacrifice is unattainable. In war the claims of the individual are submerged by the supreme requirements of national safety. The utmost that can be secured is that the State should prevent the capricious treatment of the individual, and deal with men by groups or classes, defined by occupation, age and physique, and exempted solely with a view to the successful prosecution of the war. The attempt to take into account personal hardship or family responsibilities only confuses administration and accentuates inequalities.

The badge, however, served its immediate purpose, and prepared the way for a more systematic method of exemption, when conscription became inevitable. It checked, if it did not stop, the recruiting of munition workers, which after the autumn of 1915 ceased to hamper

the production of munitions. Not less important was the work done by the department in marking out the industries, firms and occupations which needed protection. This was work which required time. Had it been delayed until military service became compulsory confusion in administration, and perhaps the disorganisation of production, could not have been avoided in the critical months of 1916. The department fortunately was not limited by the statutory definition of munitions work, but was empowered to issue badges in respect of other work for war purposes. Thus it was able to protect the producers of materials, machinery and power, and from the first this was its considered policy. Any delay or hesitation in affording comprehensive protection to the basic industries would have compromised the execution of the munitions programme, which proved to have none too broad a foundation.

So far as industries and firms were concerned, the Ministry controlled the issue of badges; but the distribution of the badges issued was in the hands of the employer, subject to any limitations imposed by the department on the occupations named in the form of application. This was unavoidable in 1915. For the employer was the best judge of indispensability and, until the Ministry had collected a large staff of technical inspectors, his judgment could not be impugned. But the employer was free to refuse or withdraw badges as he chose. So long as recruiting was voluntary this mattered little. But it was incompatible with any scheme of legal exemption from compulsory military service, and was open to grave exception under the Derby Scheme of attestation, inasmuch as it rendered possible a form of industrial conscription which was bitterly resented.

Moreover, the department was unable to regulate the issues made by the employer. He was indeed required to send within a fortnight a nominal roll of the men to whom he had issued badges, with their occupations. But, apart from the difficulties due to ambiguous terms and the absence of tests, the department had neither the staff nor the accommodation to check these lists thoroughly. Even if that had been possible, the constant movement of labour would soon have made the lists of little value. It was in fact impossible for a small central department to keep accurate records of a million men. That could be done only by local offices with an elaborate system of indexing and inspection. But, so long as voluntary recruiting lasted, such a scheme of decentralisation seemed unnecessary, nor would the great expense involved have been sanctioned.

CHAPTER II.

THE DERBY ATTESTATION SCHEME.

I. The National Registration Act, 1915.

While the enlistment of munition workers was being restricted by the issue of badges, the National Registration Act opened up another and more comprehensive method of limiting recruiting. The Act, which received the Royal Assent on 15 July, prescribed that all persons, male and female, between the ages of fifteen and sixty-five, other than members of H.M. Forces, should give the following particulars:—

- (a) Name ; place of residence ; age ; whether single, married, or widowed ; number of dependants (if any), distinguishing wife, children, and other dependants ; profession or occupation (if any) ; name and business address of employer (if any), and nature of employer's business, and (in the case of a person born abroad) nationality, if not British ; and
- (b) Whether the work on which he is employed is work for or under any Government Department ;
- (c) Whether he is skilled in and able and willing to perform any work other than the work (if any) at which he is at the time employed, and, if so, the nature thereof.

There was a demand for a measure of this kind from many quarters. The people were profoundly moved by the breakdown in the supply of munitions. They had assumed that whatever difficulties they might have to face in furnishing men for the new armies, the industrial power of the country would suffice to meet with ease every requirement for war material. But the disclosure of the shortage of shells and fuzes, the feverish offers of premises and services to remedy the deficiency, and the incapacity of the State to turn such offers immediately into productive channels awakened intense feelings of distrust and self-depreciation. "We have been convicted as a nation of what a foreign and friendly critic has lately described as the prodigious inefficiency of our national organisation."¹

The Bill was introduced by Mr. Long on 29 June as a stock-taking measure.² The Government could not organise the resources of the country until they knew what those resources were. The country had suffered grievously through indiscriminate recruiting and the failure to allocate men to the work which they were able

¹ Lord Lansdowne. See *Parliamentary Debates* (1915), *H. of L.*, XIX. 387.

² *Ibid.*, *H. of C.*, LXXII. 1651 ; LXXIII. 53 ff.

and eager to do. But the recruiting officers could not exercise their discretion, because they did not know whether a man was required in his civil occupation or not. Men were here, and work there; but the efforts to bring them together had largely failed for want of accurate and complete knowledge of the needs of the country and possible sources of supply of labour. The information provided by the Bill would enable the Government not only to refuse for the Army men who could not be spared, but to mobilise the skill of the country for the production of munitions, agriculture and manufacture for export. Much was expected from answers to the question whether a person was able and willing to undertake work other than that in which he was then engaged.¹

Lord Lansdowne took a similar line in the House of Lords.² In spite of all its efforts the country was perhaps as far as ever from the ideal at which it ought to aim.

"That ideal is that every member of the community should bear not merely a part in the national task but *the* part which he is best qualified to undertake. We are still face to face with troubles which are not due to shirking or to indifference or to trade disputes, but to absence of direction, and to the manner in which we have given free play to competition and to caprice when method, system and guidance were what we really needed. I am here to suggest that if we are to correct that, the first step is that we should acquire as complete a knowledge as possible as to what men and women are available for service of all kinds in the country, where they are to be found, and what they can do when you have found them. At present we are wholly without means of ascertaining these things."

Apart from this general object, the War Office was anxious to know how many men were available for military service in view of their ages and occupations, and where they lived. The first question might have been answered approximately from the census of 1911, if the War Office had classified their recruits on the same basis. But the information on the attestation papers was often useless for this purpose. An answer to the second question was necessary before a systematic canvass of men of military age could be undertaken. Such a canvass was foreshadowed by Lord Kitchener at the Guildhall on 9 July. Speaking of the Bill, he said³ :—

"When this registration is completed we shall anyhow be able to note the men between the ages of 19 and 40 not required for munition or other necessary industrial work, and

¹ Mr. Cyril Jackson's Committee (see p. 29) reported on 31 August that it was extremely doubtful to what extent the returns as to potential occupations could be made of service, since a large number of the replies to question (c) were almost sure to be inadequate and misleading. It would therefore be unwise to require the very considerable labour of copying these returns on to the forms without which they could not be used. HIST. REC./R./322/130.

² *Parliamentary Debates* (1915), H. of L., XIX. 386 ff.

³ *Times*, 10 July, 1915.

therefore available, if physically fit, for the fighting line. Steps will be taken to approach, with a view to enlistment, all possible candidates for the Army—unmarried men to be preferred before married men, as far as may be."

Moreover, although the Prime Minister, in answer to a question before the Second Reading, stated¹ that no such action as the introduction of forced labour or conscription was contemplated by the Government, yet the Bill provided the basis for compulsion. As Lord Lansdowne said² :—

"If compulsory service ever comes this Register will, beyond all question, greatly assist us in introducing it, because it will shorten the interval which would have to elapse between our decision to resort to compulsion and the actual application of the measure."

The critics of the measure condemned it from the outset as "a pilot of conscription."³ Regarding it as ill-adapted to further national organisation, they suspected an ulterior motive. "We oppose this Bill," Mr. J. M. Robertson said,⁴ "simply because, on the face of it, it is futile and useless, and is intelligible only as being directed to some other end, or is being introduced at the instance of classes who are driving the Government to that end." The House was not prepared to turn to good account criticism from such a quarter, although the weaknesses of the Bill were exposed, and little ground was left for the belief that it would advance industrial mobilisation.

In particular, the opponents of the Bill urged⁵ that the registration of thirteen millions of women would not facilitate the employment of female labour, while it would more than double the work of compiling the Register. They pointed to the fact that the War Register of Women, opened by the Labour Exchanges in March, had so far resulted in the placing in employment of 2,616 only of the 90,569 women enrolled.⁶ Further, general statements of capacity, made for the most part by people with little education and unaccustomed to define precisely what they could do, were unlikely to be of any use to those who wanted to fill particular vacancies.⁷ The Government would only obtain from the Register a solid mass of indigestible statistics. The sole defence offered to such criticism was that "women would not only resent being excluded, but would look upon it as a serious rebuff and wholly unjustifiable in face of the splendid services they have rendered in the prosecution of the War."⁸ But the proposal to omit women from the Bill was negatived without a division.⁹

It was pointed out that the obligation to notify changes of address was not likely to be carried out generally, unless special arrangements

¹ *Parliamentary Debates* (1915),
H. of C., LXXIII. 20.

² *Ibid.*, *H. of L.*, XIX. 394.

³ *Ibid.*, *H. of C.*, LXXII. 1656.

⁴ *Ibid.*, LXXIII. 86.

⁵ *Ibid.*, 94.

⁶ *Ibid.*, 7.

⁷ *Ibid.*, 95.

⁸ *Ibid.*, 439.

⁹ *Ibid.*, 443.

were made to secure its performance.¹ The Government, however, did not consider any amendment necessary, and assured the House that a similar provision in the National Insurance Act worked quite satisfactorily.² It was also urged that unless skilled enumerators were employed to see that the forms were properly filled in and to check them, much of the information collected would be worthless.³ But the Government was satisfied with the assurance of the local authorities that sufficient "expert volunteers" would be available.⁴

Thus this measure awakened suspicion and attained but imperfectly the objects it was intended to effect. Many regarded it as a sinister attempt to prejudge the question of compulsory service. The failure to provide for the maintenance of the Register impaired the efficiency of the recruiting offices and afforded an excuse for the widespread suspicion of evasion, and the raids and drives and other irritating methods subsequently adopted to check it. The inclusion of women and elderly men consumed to no purpose a vast amount of voluntary labour, and diverted effort from the full, accurate, and systematic record of the occupations of men of military age, which was essential to form a valid estimate of the number of men available for the Army, to place exemption from military service on a sound basis, and to secure such equality of treatment as the diverse and complex requirements of the country permitted.

II. The Pink Forms and Starred Occupations.

The date of registration was fixed for 15 August, 1915. In the meantime Mr. Long appointed a Committee, with Mr. Cyril Jackson as chairman, to advise on the best means of utilising the information to be made available by the Register. On 6 August the Committee reported⁵ that proper use could not be made of the Register unless the essential requirements of the country as a whole were known. But there was no means of obtaining this information, nor was there

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXIII. 414.

² *Ibid.*, 415, 504, 506. Mr. Cyril Jackson's Committee reported on 31 August that notification from the registered person himself would result only in a very imperfect maintenance of the Register even for change of address. The man in the street was not accustomed to notify any authority of his change of address, and he would often be at a loss to know to what authority to send information. Experience under the National Insurance Act showed that the number of removals was very great and that it was hopeless in a large proportion of cases to expect the insured person himself to notify changes of address. The Committee thought that something might be done by obtaining notification through the employer, but they inclined to the opinion that the difficulty and cost of maintaining the Register would be so great, that it would be simpler to compile an entirely new Register every six months. *HIST. REC./R./322/130*.

³ *Ibid.*, 416.

⁴ *Ibid.*, 423.

⁵ *HIST. REC./R./322/130*. The report was signed by Mr. C. Jackson, Sir R. A. Hadfield, Messrs. G. Drage, R. E. Fox, M. A. Gasson, C. W. Macara, H. Nield, F. Potter, J. H. Thomas, and Miss V. R. Markham.

any machinery for balancing and co-ordinating the demands of the different services, military and industrial. The Committee feared that the very existence of the Register, if it were merely used for giving further facilities for recruiting, might itself add to the present wasteful competition of national interests, to the grave detriment of the country.

They proposed, therefore, that a central body should be set up with the duty of bringing together all information as to national needs and resources, in order that these might be understood and the competition of Departments avoided. This body should only collate intelligence and advise. It should not interfere in any way with the administrative functions of the Departments. They also recommended that local tribunals should be appointed by the Government to decide whether or not a man whom his employer claimed as indispensable should be recruited for a particular national service. The principle of exempting men in certain trades or occupations which were of supreme importance should be adopted so far as that was reasonably possible.

Pending, however, the completion of such arrangements, action should be taken to enable the War Office to use the Register for recruiting without delay, provided that men in trades of national importance were protected. The Registrar-General had already issued instructions that the registration forms of all men of military age should be copied on pink forms. The Committee understood that it was intended to send all these forms at once to the recruiting authorities. But if that were done, men who were essential for other national services would be pressed to join the Army. To prevent this, the Committee urged that the various Departments concerned should be asked to state from what trades men should not then be recruited, and in particular arrangements should be made with the Ministry of Munitions in order that officers well acquainted with its requirements should go through the registration forms of workmen in the metal and other munitions trades, and mark the forms of those men whom they considered indispensable.

In accordance with this recommendation an Inter-departmental Committee was appointed on 17 August to prepare a list of occupations from which, for the present at any rate, no further recruits should be drawn. The Committee reported¹ on 1 September, having drawn up a list² which covered :

- (1) Workmen required for the production of munitions of war, the supply of which had been undertaken by the Ministry of Munitions, or for the production and transport of ships required by the Admiralty.

¹ HIST. REC./R./322/130. The Report was signed by Sir G. S. Barnes, Sir R. H. Brade, Mr. E. J. Cheney, Mr. M. Delevigne, Sir W. Graham Greene, Mr. B. Mallet, Sir H. C. Monro and Sir H. Llewellyn Smith.

² See Appendix IV.

- (2) Occupations essential to the maintenance of agriculture.
- (3) Occupations essential to the maintenance of coal and other mining.
- (4) Railway servants employed in the manipulation of traffic and in the maintenance of the lines and rolling stock.

It was proposed that the pink forms of all men whose trades were included in this list should be marked with a black star by officers of the Labour Exchange Department, and that starred men should not be accepted for enlistment. The Committee estimated that the men entitled to a star and physically fit for military service would amount roughly to 750,000 as follows:—

(1) Munitions, supplied by Ministry of Munitions and Admiralty	250,000
(2) Agriculture	100,000
(3) Mining	250,000
(4) Railways	150,000

The Committee pointed out that this list of barred occupations should be regarded as strictly provisional and subject to amendment from time to time. It was not intended to supersede existing instructions which limited recruiting among persons engaged in public utility services. Moreover, in framing it no account had been taken of the maintenance of the general industrial and economic strength of the country, including the export trade. A list for this purpose was difficult to prepare, and involved enquiries which were still incomplete. But it should be embodied in supplementary instructions to be issued at a later date. Finally no account had been taken of the munitions supplied through the Quartermaster-General's Department, since the protection of the men required for such supplies was thought to be a matter for the War Office.

On 2 September this Report was considered by the National Register Committee,¹ which had just been appointed, in accordance with the recommendations of Mr. Cyril Jackson's Committee, to advise the Government on the best method by which the National Register could be utilised for the successful prosecution of the War. It was resolved² to adopt the Report, and recommend to the Government that the procedure indicated in it should for the present be followed, on the understanding that the lists of exempted occupations and the suggested procedure could not be regarded as final, but should be subject to revision later if found necessary.

¹ The members of this Committee were Lord Lansdowne (Chairman), Sir G. S. Barnes, Sir R. H. Brade, Mr. E. J. Cheney, Sir J. M. Dodds, Mr. W. L. Hichens, Mr. B. Mallet, Miss V. Markham, Sir H. C. Monro, Sir H. Llewellyn Smith, Mr. J. H. Thomas, Sir E. Troup, and Sir G. Younger.

² HIST. REC./R./322/130.

At the end of October the following figures were reported to the Committee by the Registrar-General and the Scottish Office¹:—

	<i>Pink Forms Written.</i>		<i>Pink Forms Starred.</i>		<i>Percentage.</i>
England and Wales..	4,583,504	..	1,303,888	..	28·4
Scotland	574,707	..	215,544	..	37·5
TOTAL	5,158,211	..	1,519,432	..	29·4

The starred forms were distributed as follows:—

	<i>England and Wales.</i>		<i>Scotland.</i>		<i>Total.</i>
Agriculture	119,946	..	22,078	..	142,024
Mining	362,792	..	59,705	..	422,497
Railways	126,045	..	10,071	..	136,116
Other Occupations ..	695,105	..	123,690	..	818,795

In the last group the great majority were starred for munitions work, but some deduction from the total, 818,795, must be allowed on account of mechanics employed in connection with agriculture, mining, and the railways.

III. The Military Capacity and Obligations of the Country.

While the Register was being compiled, the Government was surveying the duties and requirements of the country and working out a policy for meeting them. For this purpose, a Committee of the Cabinet was appointed in the middle of August, Lord Crewe presiding and the other members being Lord Curzon, Lord Selborne, Mr. Churchill, Mr. Austen Chamberlain, and Mr. Henderson. This is not the place for attempting a detailed account of the various and complex problems which called for decision; but the main factors in the situation must be briefly indicated, in order that the Government's recruiting policy may be understood.

Looking to the campaign of 1916, the War Office considered that it was the duty of the country to maintain 70 divisions in the field. More was not possible. A larger number of divisions could not be formed, at any rate before the spring of 1916, even if military service was made compulsory. Lack of munitions would not be a permanent bar, though it might last for some time. The difficulty of producing officers would take longer to overcome, and there were many other difficulties to contend with. The War was a much more draining war than had been contemplated. In some respects the country was already coming to the limit of its resources. Some essentials were not yet obtainable, and it was doubtful when they would be. As the

¹ HIST. REC./R./322/134.

War went on, it became more and more clear that only very efficient officers could be entrusted with the direction of the men.

But if the country could do no more, it ought not to do less. The War was not a Government's war on limited liability principles, but the nation's war. It could not be won except by a supreme national effort, such as the enemy was making. If it was not won, no soundness of finance would avail. The country would be bled white. Moreover, the Allies had a right to expect the whole-hearted support of Great Britain. Her obligations would be fulfilled by the maintenance of 70 divisions in the field. Although the failure to maintain so large a force would not be a breach of faith, France would be very much disappointed if that happened.

In order to maintain 70 divisions in the field throughout 1916, 1,500,000 recruits would be required in the course of the next twelve months. If these could be obtained by voluntary recruiting, Lord Kitchener said that he would not contemplate conscription. The success of voluntary recruiting had been one of the most marvellous features in the progress of the War. Compulsory service would not enable him to increase the number of units he was preparing to put in the field next spring. There were grave objections to changing the system of military service during the time of war, and the introduction of compulsion would possibly affect the morale of the Army. But voluntary recruiting was producing only 20,000 men a week instead of the 30,000 required. If the National Register showed that the men were available for the Army, after duly supplying the other necessary services of the country, the objections to compulsion should not prevent the Government from doing their utmost to put the full armed strength of the country into the struggle.

IV. The Economic and Financial Situation.

The Treasury drew attention to another aspect of the national effort. The economic and financial liabilities undertaken by the country were already straining its resources to the utmost. Further expansion of the Army meant increased expenditure and diminished production, greater difficulty in financing the purchases in America of munitions, materials and food essential to Great Britain and her Allies, and less likelihood of avoiding monetary inflation with its perilous consequences on the exchanges, the cost of living and wages.

The problem was primarily one of supply. If more men were withdrawn from industry, could the country produce enough to supply directly or by means of exports her own requirements and those of her Allies?

The needs of the Allies and Dominions were increasing. Advances to them for the most part only expressed in terms of money their demand upon Great Britain for goods—goods which must be supplied if they were to go on fighting. These advances already amounted to a million sterling a day; and, in spite of every effort to check them, they were

growing. In April, 1915, for example, Britain agreed to give France a credit of two millions a month. In August the amount was doubled. The steel works and coal mines of France were largely in the possession of the enemy. She had used up her supplies. She was consuming more and more every day. Unless Britain could supply them to her, she could not get them. The same was true of Russia and Italy. As the War went on, every one of the Allies became more and more dependent on the United Kingdom and its productive power.

The United States were the only important source of supply outside Great Britain. But the Allies could obtain goods from the United States only in so far as Great Britain could either borrow there, or sell securities, or export goods. It was hoped that the United States would lend £100,000,000, but more was not anticipated, owing to the intense demand for capital there, and the fact that they were not accustomed to invest abroad. The sale of securities in America was realising between half a million and a million a week, and might perhaps be extended to two millions a week. More was hardly possible, since there was no market in the United States for British capital invested abroad except that relatively small part which the American investor would take more readily than British Government bonds. But while these methods of financing supplies were strictly limited, the balance of trade was inclining more and more against the United Kingdom. The exports of home produce in the first seven months of 1915 were eighty-one millions less in value than the exports for the corresponding period of 1914; at the same time the value of imports had increased by fifty-three millions. The rate of exchange between Britain and America was falling; and its fall registered the incapacity of the United Kingdom to meet its liabilities. But unless Great Britain could pay the American manufacturers for their goods they would stop delivery.

In short, except to a limited extent, the economic obligations of Great Britain to her Allies could only be met by the production of goods. Financing their purchases rested in fact on British manufactures and services. Unless the Allies received the guns, rifles, ammunition and other necessities which they had ordered they would be forced to stop fighting. Even as it was, Russia would not obtain more than a small fraction of the supplies which she required. So far as the money was concerned, Britain might give her Allies all that she lent. That would affect the future only. For the present what mattered was the maintenance of production.

But even if the necessary supplies were available, the financial problem was serious. The deficiency for the year ending 31 March, 1916, after allowing for taxation and all borrowing up to date, was estimated in September, 1915, at £700,000,000. How far this was likely to be met by borrowing and selling securities in the United States has already been indicated. Could the balance be met from the real resources of the country? Apart from the consumption of stocks and the diversion of the labour which would ordinarily go to making good depreciation, there remained only that part of the current income of

individuals and corporations in the United Kingdom which the Treasury could secure in taxes and loans.

The net income from industry had been reduced by enlistment, although a large part of the loss on that account had been met by industrial reorganisation. But of this reduced income a higher proportion than usual was being earned and *consumed* by the working classes, owing to war bonus, overtime and advances in wages resulting from the keen competition for labour. A similar effect on consumption was produced by the separation allowances paid to the dependants of men who had joined the Colours. Thus a greater part of the national income than ever before was being diverted into the hands of those classes which contributed little in direct taxes and were not likely to subscribe much to Government loans.

Under these circumstances it appeared unlikely that more than half the estimated deficit could be made good out of current savings. Consequently, after making allowance for such assistance as might be anticipated from foreign loans and the sale of securities abroad, it seemed probable that a very large sum, possibly as much as £200,000,000, must be raised by methods of inflation, namely, by loans from the banks, the banks creating credit for this purpose and maintaining their solvency by the help of Treasury notes. But such inflation would inevitably produce a further rise in prices, stimulate imports, diminish exports, aggravate the difficulties of providing foreign exchange, augment the cost of living and accentuate the demand for advances in wages.

V. The Argument for Making Military Service Compulsory.

The Treasury's appreciation of the economic and financial situation only strengthened the opinion of those members of the War Policy Committee, who believed that compulsion was necessary. They agreed that in production and finance the country was rendering to the common cause vital services, many of which were in no way inferior to exertion in the field of battle. But they did not consider that the whole energy of the nation was yet absorbed in the struggle. In many quarters there was unnecessary expenditure, which consumed labour that ought to be made available to meet the military or economic exigencies of the War. Moreover, the productive power of the country was far more elastic than had been assumed. The substitution of female labour for men of military age and fitness and the better organisation of industry would set free many men for the Army, without impairing the capacity of the country to perform all necessary services both to itself and to the Allies. But voluntary recruiting was not compatible with the selection and control, which were essential, if the nation intended to throw its whole weight into the War; and as the margin of potential energy decreased, the capricious results of the unco-ordinated action of individuals were certain to involve waste of power, which would weaken both the military and the economic effort of the country and might end in disaster.

The supporters of compulsion therefore reported¹ to the Cabinet that in their opinion it was still within the power of the country to discharge all necessary services, and at the same time to maintain in the field an army of not less than 70 divisions.

“ But we can only do this if all our resources in wealth and man power are employed without reserve with the most thorough and far-sighted efficiency. We cannot afford, as in Germany or France, to sweep into the Army the great mass of the military manhood of the country. Neither can we afford to take men indiscriminately for military service as they present themselves, without regard to their individual services or their usefulness in other spheres. With us the problem is more complex; the quality of the effort must be higher and more varied; the need for control and organisation is even more vital. Of all the belligerent nations we are the one which can least afford to take a married man of 40 while a bachelor of 25 is idle. It is not wise to take a skilled munition worker for the front while a private domestic remains at home. We ought not to let one district be depleted through its patriotism of the indispensable minimum of agricultural or unskilled labour, while in another the recruiters have made practically no headway. . . . We cannot afford to let a military male needed for the Army do work which could be done by a woman, a boy, or an older man. Greater efforts in national organisation are required to remedy these defects, and thus ensure in all its various forms the maximum development of war energy among our people.”

This argument was reinforced by Mr. Lloyd George, whose point of view was dominated by the magnitude of the Russian disaster and its probable consequences on the Western front, by the shortage of skilled labour for the execution of the new heavy gun programme and the difficulty of obtaining the release from the Colours of the mechanics who had enlisted, and by the want of discipline and the restriction of output among some of the workmen in the munitions factories. In his opinion general compulsion was necessary to make a nation absolutely efficient for war. Every man and woman was bound to render the services that the State required of them, and which in the opinion of the State they could best render. The Government might before the end be driven to resort to this measure. He did not, however, propose to go further than to impose the obligation of military service upon every man within certain ages. With this general and basic authority all that was essential could probably be attained. This power would enable the War Office to order back to the factories the skilled men who had enlisted but would not return voluntarily, although the execution of the new programme depended entirely upon getting a sufficient number of skilled men to carry it out. It would also make the War Office less anxious to retain these

¹ *Supplementary Memorandum to the Report of the War Policy Committee*, signed by Mr. Churchill, Lord Curzon, Lord Selborne, and Mr. Chamberlain, 7 September, 1915.

men, and would prevent the further recruiting of skilled munition workers. On the other hand, the workmen who slacked would be liable to be sent to the trenches. In France that was regarded as quite adequate to keep slackers in order. Finally, he did not believe that the armies at the front could be maintained without compulsion, unless the Government were prepared deliberately to cut them down to a figure which would be inadequate and was known to be inadequate. The longer compulsion was delayed, the nearer the country would come to disaster.

VI. The Argument for Giving a Further Trial to Voluntary Recruiting.

A different course of action was recommended by Mr. Balfour and Mr. Henderson. Both agreed that compulsion would be accepted by all except a small minority, if it was proved that without it the Army could not be maintained at the strength which the Government believed to be both possible and necessary. But in order to prove this, the voluntary system must be given every opportunity of meeting the demand for men. Any attempt to introduce compulsion before the military necessity for it was demonstrated, or to advocate it on any other ground, would split the nation into bitterly opposed factions and do incalculable injury to its fighting power.

In a memorandum, dated 22 August, 1915, Mr. Balfour said :—

“ It is evident that the question of universal service is producing a very restless and uneasy feeling in the Government, in Parliament, and in the country. . . . There is only one question that immediately concerns us, and that is : Should we, in order to carry on the war effectively, establish universal service *now* ?

“ This question, however, though in appearance purely technical, has also a political side. National unity is a great military asset. We may not be able to express its value in military terms ; we may not be able to say that it is worth so many army corps or so many rounds of high explosive shells ; but its value to the cause of the allied belligerents is nevertheless immense, and it must not be thrown away in exchange for any weapon of less fighting value than itself.

“ Now, for my own part, I believe that *if* the country were really convinced that universal service was absolutely necessary for the War, they would accept it practically unanimously ; but I do not think that they are as yet convinced of this, nor am I clear that they ought to be. In any case, I am confident that the subject requires the most delicate and cautious handling. Were the notion once to get abroad that those who have in the past advocated the cause of conscription were using the War as an instrument of their propaganda, I should have no hope that universal service would

ever receive universal support. Only if you show the country that conscription is an immediate necessity forced upon it by an unexampled occasion will old controversies be allowed to sleep and old prejudices be forgotten. Suggest to it, on the other hand, that the present crisis is only a specially striking example of our normal national needs, and those who dissent from this view will remain coldly indifferent to your pleading and bitterly hostile to your policy.

"As I read the situation, then, there are two sections of public opinion which in the interests of unity it is all important to reassure, namely, those who are afraid that the Government, through indecision or timidity, will shrink from insisting on National Service, although this be absolutely necessary for the successful prosecution of the War; and, on the other hand, those who are afraid that a particular crisis is going to be misused for the purpose of compelling them to adopt a military system to which they entertain an ancient and deep-rooted objection.

"I believe that the best way of solving the difficulty would be for the Secretary of State for War, without undue delay, to reiterate in public, with every circumstance of solemnity, what I gather from certain *obiter dicta* in Cabinet to be his real opinion. Let him say on behalf of the Government that, for the present, universal military service is not needed; that under the voluntary system he can send into the field and maintain as large an army as he can either arm or train. Let him add that if the War is prolonged it may well be that this system, marvellous as have been its results, will prove insufficient, and let him pledge the Government, when that time comes, to take all further steps that may be necessary. Such a statement, coming from such a source, should be enough for those who desire conscription, and not too much for those who look at it with suspicion."

Mr. Balfour's suggestion was supported by Mr. Henderson in a memorandum dated 7 September, 1915. He accepted as his guiding principle Lord Kitchener's statement, that if he had 1,500,000 by voluntary recruiting instead of 1,000,000 he would not contemplate conscription. Mr. Henderson could not admit, until it was proved by experience, that the balance could not be raised without compulsion. Recruiting had been proceeding almost mechanically; no special appeal had been made; no striking reports had reached the people from the Western front, only a few from the Dardanelles. Yet men had been enlisting at the rate of 20,000 a week. If Lord Kitchener, speaking with all his unique authority and supported by a united Government, made it clear that the present rate of recruiting must be increased by 50 per cent., and that, if this could not be accomplished by voluntary recruiting, it would be imperative for him to ask for compulsory powers; if he would meet the trade union leaders in private conference, and explain why more men were needed, his action

would go far towards making any change, with all its attendant risks, unnecessary. "I am convinced that there is no possible chance of altering our system of enlistment, unless Lord Kitchener is prepared to say that the voluntary method has failed to give him the men required for the saving of the nation."

Such a procedure would pledge the whole nation to making voluntary enlistment successful for a definite object. If the effort failed the nation would realise as never before that it was committed to compulsion. But if the Government did not take the people into their confidence, and an attempt was made to impose conscription abruptly and without warning, the difficulties would be almost insuperable, with a divided Cabinet, a divided Parliament, and a divided nation.

There was a great volume of feeling in the country against conscription. Since the outbreak of agitation in the newspapers he had received more than 300 resolutions, representing in one way or another nearly all the important industries. Of the nature of the objections it was not easy to give a clear account. Those who felt them most did not always express them best. But, apart from generalities about civil liberty and Prussianism, the main arguments appeared to be the following. The working man did not believe that he had an equal and his legitimate share in government. He thought that the laws limited his freedom in the interests of the employer. Thousands of working men would deny altogether the competence of a Parliament, elected under the existing Franchise and Registration laws, to bind them on an issue of life and death. In the abstract it sounded well to say that the State had a right to the services of all its citizens; but to working-class voters the proposition meant that A could make B go for a soldier because A had a house and B was a lodger, and that C who was childless could dispose of the four sons of D and E because, in addition to his house, he had property in two other constituencies. The working man did not believe that the toll of conscription would be levied equally on him and on his employer. As a volunteer, he felt that the rich man who was fighting beside him had, like himself, made great sacrifices. As a conscript, he would feel that he had been placed in the trenches by the votes of rich men who were not there themselves. Even if he were persuaded that conscription was being administered evenly between rich and poor, he would still think that while both had had something taken from them the rich man had much more left. The suspicion of private advantage at the public cost, which was one of the main roots of industrial differences, would be intensely aggravated when the point at issue was not profit, but life. If conscription were introduced in a passion of class feeling, class feeling would attend the conscript army in the field. If, as had been suggested, the pay and other conditions of the conscripts were to be less favourable than those of the volunteers, the dissatisfaction would be dangerous in its intensity. The working man believed that conscription was a capitalist weapon for interfering

with the rights of the workman. If it was used as a roundabout form of industrial compulsion it might provoke a sympathetic strike of the miners or some other powerful body of workmen which could not easily be suppressed.

To the strong instinctive dislike of compulsion, fortified by considerations like these, there was only one effective reply, the argument of necessity. "It is necessary to have men, to have so many, and to discriminate between one trade and another, and between married and single." The power of discrimination was, on the whole, the most cogent argument for conscription. But it would not carry conviction until the experiment had been made of using the National Register to co-ordinate all recruiting efforts on the principle of selection. If that failed, the argument from necessity would be overwhelming; and, given certain guarantees, Mr. Henderson would be prepared to use it with considerable confidence of success.

The guarantees which should accompany enforced military service were as follows. The principal inequalities in the electoral system should be removed by establishing universal suffrage. Taxation should be spread equitably over all classes according to ability to pay, and should be aimed primarily at luxuries, unearned incomes and war profits, and secondly at rents and profits in general. The most definite pledges should be given that conscription would not be continued after the War, a reasonable interval being allowed for disbandment; that special machinery would be created for resettling soldiers in industry; and that conscription would not be used to effect any change in the existing arrangements, whether under the Munitions of War Act, the Trade Disputes Act or the general law for dealing with industrial disputes.

Mr. Henderson concluded his memorandum with the following words:—

"It is useless to ignore the fact that conscription has become to some extent a party question and the subject of serious controversy. As such it is gathering to itself other party questions on which the working classes feel and think strongly. Party and class are coming to coincide as they did before the War. The unity of the nation is in danger. Our aim must be to handle the situation so that compulsion, if it comes, comes by the action of the people themselves. On the alternative of conscription or defeat they will be united again. But they cannot be brought to that alternative suddenly, or apart from the conviction that it is a military necessity. They must have time. And if the time is spent in a final endeavour, made after the most solemn appeal and on a full and reasoned statement of our obligations to our Allies, to meet those obligations voluntarily, I believe that one of two results will follow. Either conscription will be accepted without serious injury to the Nation or it will be proved to be unnecessary."

VII. Lord Derby's Campaign. The Last Effort of Voluntary Recruiting.

The policy recommended by Mr. Balfour and Mr. Henderson was adopted. On 28 September, 1915, the representatives of organised labour heard from the Prime Minister and Lord Kitchener statements on the military position, and two days later, at a conference at the Board of Education, they declared their belief that the numbers of men required for the Navy, Army and munitions work, in order to carry on the War successfully, could be obtained by voluntary means. They pledged themselves to assist the Government in every possible way to secure men for these services, and decided to organise for this purpose a special labour recruiting campaign throughout the country. On 6 October they issued the following appeal :—

“ At no time in the history of our nation has it been faced with a crisis of such gravity as the one which now exists. . . .

Under the voluntary system we have raised great armies to oppose the aggressor, and we can point proudly to their achievements.

We are, however, satisfied that if the voluntary principle is to be vindicated, at least 30,000 recruits per week must be raised to maintain the efficiency of our armies, and secure such a victory as will free the world from the fear of that military tyranny which Germany would impose upon it. . . .

We know that defeat or an inconclusive peace would mean for us not only the loss of prestige as a nation and the certainty that the conflict would be renewed in a few years' time, but the loss of those personal liberties and privileges which have taken centuries of effort to win.

The responsibility for victory or defeat rests with those who have not yet responded to the Call.

Therefore, join now as volunteers in defence of your country, and all that it stands for.”

On the same day it was announced that Lord Derby, at the request of the Secretary of State for War, would assume the direction of recruiting for the Army on 11 October.

On 19 October Lord Derby explained his scheme at the Mansion House, with the warning that it was “ the last effort on behalf of voluntary service.” His object was to canvass and, if possible, to enlist every man of military age and fitness who was not required for munitions work or other indispensable services at home. Those who wished to join the Colours at once would be allowed to do so. The rest would be attested and divided into 46 groups, which could be called up as they were wanted, the first half being groups of unmarried men, grouped according to age, the second half groups of married men, similarly grouped. A fortnight's notice would be given to every man, in order that he might have time to wind up his affairs and appeal, if he wished, to be put in a later group on the ground, for example, of

special family obligations. Such appeals would be decided by local committees ; but the recruiting officer would have the right of appealing to headquarters against such decisions. This scheme would secure for the Army reserves of men on which it could rely instead of going on from hand to mouth. If every man whom the recruiting committee had the right to ask would join under these conditions, it would, he hoped, be many months before the older married men were called upon at all. It might even be that the War would be decided before this was necessary.

The basis of this scheme was the National Register. The system of starring had enabled him to eliminate from the canvass men who were needed for munitions and other work of national importance. This system might require modification. Unstarred men might prove to be indispensable in their various employments. The recruiting officer would use his discretion as to sending such men back to their work pending enquiry, and would report each case to the War Office for further consultation with the Departments concerned. Supplementary lists of trades would be issued in which such exemptions might be generally regarded as valid. On the other hand, it might turn out that some of the men who had been starred could be released for the Army. Although starred men were forbidden ground for the recruiting officer, they might offer to enlist. "I should keep these men as soldiers," Lord Derby said ; "they would be enlisted and attested as soldiers to be called upon if wanted, but I should send them back at once to their employment."

The canvasser, Lord Derby added, should respect not only the star, but the war service badge. "The War Office, the Admiralty, and the Munitions Department have come to a thorough understanding, and the man who can produce to a canvasser a war badge issued by the Government has a sufficient answer to the request that he should serve his country, because in his own land he is doing all that the country can call upon him to do."

On 2 November, after some delay owing to indisposition, Mr. Asquith made a statement¹ to the House of Commons on the policy of the Government, in the course of which he defined his attitude to compulsion. After admitting that there had been differences of opinion among the members of the Cabinet, he proceeded to state his own view.

"In the first place, I have no abstract or *a priori* objection of any sort or kind to compulsion—in time of war. I have nothing at the back of my mind which would make me go to the stake, or through some less severe form of penance, in defence of what is called the voluntary principle. I think that in time of war we must get rid of all these predilections, both on the one side and on the other. It is a pure question of practical expediency—how are we going to bring the War to a successful conclusion? I will make a further admission, if admission

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXV. 503 ff.

it can be called, and that is, that I think our system of voluntary recruiting, which does very well, or well enough, under normal conditions in time of peace, operates, as it has been hitherto practised, in a haphazard, capricious, and to some extent unjust way, both with regard to individuals and classes. It is like a net with very irregular meshes."

"My objection to the employment of compulsion for the purpose of recruiting the Army under existing conditions has not been based at all upon abstract attachment to a *a priori* principle or upon blindness or indifference to the imperfections and defects of our existing method of voluntary recruiting. It is based upon an entirely different ground, namely, that the employment of compulsion under existing conditions would forfeit what I regard to be of supreme and capital importance, namely, the maintenance of the national unity. That again is an abstract objection, but when translated into concrete terms it means this: If you were to apply—I do not speak of any particular method, but any method of coercion or compulsion without something in the nature, I will not say of universal but of general assent, you would defeat your own purpose. It would not be a practicable or workable method of making good and filling up the gaps left by the defects of the voluntary system."

Mr. Asquith went on to say that for the moment the controversy about compulsion was irrelevant. Men of all parties were endeavouring to make Lord Derby's scheme successful. He would not lay down any figure as the criterion of success; everybody should be secured who was left of military age and capacity, after the other national necessities had been supplied. But he promised to state whether in his opinion the scheme had succeeded as soon as it was possible, after the closing of the lists, to classify and arrive at the results which Lord Derby had attained. He believed that the experiment would be wholly successful.

"But," he continued, "if when every just allowance has been made for other necessary work, and the whole of this machinery has been in operation and has achieved what it can, there should still be found a substantial number of men of military age not required for other purposes, and who without excuse hold back from the service of their country, I believe that the very same conditions which make compulsion impossible now—namely, the absence of general assent—would force the country to a view that they must consent to supplement by some form of legal obligation the failure of the voluntary system. . . . I am determined—I stick at nothing—I am determined that we shall win this war. Sooner than not win the War, if I found—I do not believe I shall—such a situation as that, I should come down without the faintest hesitation or doubt to all my friends, those who like myself are what I call strong supporters of the voluntary system, and say, 'We

have done what we could, we have not obtained the results we hoped for. We must do what is still necessary by other means.' "

" Let me say one word more in this connexion. I am told by Lord Derby and others that there is some doubt among married men who are now being asked to enlist whether they may not be called upon to serve, having enlisted or promised to enlist, while younger and unmarried men are holding back and not doing their duty. Let them disabuse themselves of that notion. So far as I am concerned I should certainly say the obligation of the married man to serve ought not to be enforced or held to be binding upon him unless and until—I hope by voluntary effort, if it be needed in the last resort, as I have explained, by other means—the unmarried men are dealt with."

VIII. The Problem of Protecting Munition Workers under Lord Derby's Scheme.

It remains to consider the arrangements for securing the protection of munition workers under Lord Derby's recruiting scheme, and, in particular, the negotiations on the question where the control of exemption from military service should lie.

Men required for munitions work were protected by stars and badges. The star was less invidious than the badge, since a man was starred in virtue of a general qualification, whereas he was badged because a particular firm claimed him as an indispensable individual. Moreover, the star secured a reserve of labour for the Ministry, since it protected men in certain trades, whether they were employed on war work or not. On the other hand, the badge was a more flexible instrument, and flexibility was important, since it was not yet feasible to fix precisely what trades were essential for munitions and many persons required protection, if a works organisation was not to be upset, whose class there was no need to exempt. As a visible token of employment on urgent and vital work the badge had a special value so long as military service remained voluntary. And it would certainly have caused serious unrest if the issue of badges had been broken off in the autumn of 1915. The Ministry therefore decided to proceed with the issue of badges, although the starring of the pink forms to a large extent answered the same purpose.

It might appear that men indispensable in civil life should have been not only excluded from Lord Derby's canvass, but also refused if they offered to attest. This course might have been practicable if, before Lord Derby had launched his scheme, it had been ascertained who were required to make munitions and to carry on the other essential services at home. But the list of starred occupations was inadequate even for munitions, and it took no account of the requirements for the export trade or the maintenance of the general economic strength of the country. Moreover, it was very doubtful whether the information in the National Register was sufficient to ensure the

accurate starrng of the pink forms. Similarly, the work of issuing badges had only recently been put on a wide basis, and could not be completed for some months at least. Further, it was certain that progress in dilution and substitution would render possible the release of many men for military service who could not be dispensed with for some time without affecting gravely the output of munitions. Consequently Lord Derby decided from the outset to attest starred or badged men, if they offered themselves, although by so doing he swelled the total of his recruits by a large number of men who could never be called up for service in the field. This fact rendered worthless all popular inferences from his figures, and made it difficult for anyone to estimate how many men his scheme had really secured for the Army.

The decision to attest badged and starred men gave great importance to the question what authority should control exemptions from military service. Three courses were open. The responsibility might be either entrusted to a local committee, or to the War Office, or to the Department directly concerned. The War Office desired, if possible, to control all exemptions from military service, and this desire was not unnatural, since the intervention of other Departments or local bodies could not but introduce an element of uncertainty into its estimates of the number of men available for service and the time at which they could be released. But the Departments responsible for national supplies, especially the Admiralty and the Ministry of Munitions, were unwilling to part with the control of their labour, the shortage of which was already the limiting factor in some essential classes of production, and must become more and more serious as the drain on the man power of the country increased. If, again, the power of granting exemptions was entrusted to local committees, it would be difficult to keep them adequately informed of the national requirements and hardly possible to reverse their decisions except on rare occasions. On the other hand, local tribunals, if properly constituted, would be best fitted to examine the facts of each individual claim, and more likely than any central body to administer exemptions in harmony with public opinion.

IX. The Establishment of Local Tribunals.

Mr. Cyril Jackson's Committee on the National Register had reported in favour of local committees or tribunals to deal with cases of dispute, whether or not a man should be recruited.¹ A central body might very well select the trades or occupations which should be generally exempted, but in determining individual cases local conditions must be taken into account ; moreover, reference to a central authority would entail serious delay ; and the fruitful organisation of national resources could be accomplished only if full advantage was taken of local spirit, enthusiasm and knowledge. The local tribunal should be cognisant not only of local conditions, but also of national needs, and must be animated by a generous spirit, and in no way

¹ *Interim Report*, 6 August, 1915. HIST. REC./R./322/130.

sacrifice the general interests to those of the locality. It was suggested, therefore, that each local tribunal should be constituted by an independent chairman and one representative each of the War Office, the Ministry of Munitions, employers and workpeople. The War Office and the Ministry of Munitions should choose their representatives, the remainder being appointed by the Government. Each Department should have the right of complaining of the work of a tribunal. If it was found that a committee was deciding cases without due regard to national interests and was incorrigible—an unlikely event—individual members could be removed, or the committee could in the last resort be dissolved and a new committee be appointed.

The Ministry of Munitions took strong exception to this proposal.¹ Such a system was quite unsuited to settle questions involving policy or requiring uniformity of treatment throughout the country. There would be a large number of committees with virtually no appeal that was effectual and workable. An appeal against a committee or against individual members of a committee was not of any value. To protect persons who ought not to be recruited a definite list of barred occupations, supplemented by an organised and unified system of war service badges given to men on war work, was really sufficient to cover the greater part of the ground. The only question that remained uncovered was that of determining whether a man was in fact working at a barred occupation. No doubt there was some advantage in clearing up this question locally; but under a voluntary system of recruiting such cases were not likely to be common. If it was necessary to have any machinery to deal with them, it would be preferable to have some simple reference to a local magistrate or possibly the chairman of a Munitions Tribunal, or, if the cases were not too numerous, a direct reference to an umpire in London.

On 22 October Lord Lansdowne informed² the members of the National Register Committee that, after discussion between Lord Derby, Mr. Long and himself, it had been decided to set up local machinery to deal with questions arising out of the new recruiting scheme. Each borough, urban district, and rural district council would be asked to set up a small committee. By using the local authorities the local machinery would be quickly established; the councils were well acquainted with local conditions, and by invoking the assistance of representative bodies already in existence it would be possible to avoid the criticisms to which new tribunals appointed *ad hoc* would almost certainly be exposed. The Local Government Board would issue instructions concerning procedure and the principles to be followed in deciding cases brought before them. Appeals would be allowed to a small number of district appeal tribunals, and there would be a central body to deal with general complaints or questions of general policy. Three groups of cases were contemplated. Questions might be raised as to the accuracy of starring individual men. Trades and occupations not as yet barred might require protection in order

¹ HIST. REC./R./322/134.

² HIST. REC./R./322/134.

to prevent the dislocation of industries of national importance. It might be possible to relax the barring in some localities where men could be spared.

Accordingly, on 26 October the Local Government Board sent out a circular to all Town, Metropolitan Borough, Urban and Rural District Councils, inviting them to set up Local Tribunals.¹

X. The Negotiations as to the Exemption of Badged and Starred Men. October to November, 1915.

In the meantime the problem of the control of exemptions had begun to shape itself. On 1 October, 1915, the Director of Recruiting issued the following instructions to recruiting officers²:—

Men whose Pink Forms have been starred, being presumably required for necessary services, should not for the present be approached or urged to leave their employment in order to join the Army. If unemployed they will be open to enlistment. In any case where, in the opinion of the Recruiting Authorities or the Local Committees assisting the Recruiting Authorities, the starred man is not absolutely required, the case will be forwarded to the War Office for consideration.

Exception was taken to this circular by Sir H. Llewellyn Smith on the ground that recruiting officers should not only abstain from pressing starred men to enlist, but should actually refuse to enlist them. The War Office contended that it had no power to refuse a starred man if he pressed to be allowed to enlist. Lord Lansdowne, to whom the matter was referred, supported Sir H. Llewellyn Smith. "The whole of our recent arrangements," he wrote³ on 12 October, "proceed upon the assumption that men falling within certain categories are not to be taken for the Army; and it seems to me that the bottom would be knocked out of these arrangements completely if it were once admitted that it rested with the individual concerned to say whether he should or should not enter the ranks."

Meanwhile, on 7 October, the circular had been amended and sent out by the War Office in a form satisfactory to the Ministry of Munitions. Starred men should not be accepted for enlistment, unless they were unemployed and produced a certificate from the Board of Trade that no suitable employment in their trade was available. If the recruiting authorities considered that a starred man, or any class of such men, ought no longer to be debarred from enlistment, the case should be forwarded to the War Office for consideration in consultation with the appropriate Departments.

With the launching of Lord Derby's scheme the difficulty took a new form. On 23 October the War Office sent out a circular letter⁴ to the recruiting authorities, explaining that either a man might be

¹ HIST. REC./R./322/134.

² HIST. REC./R./322/134.

² 27/Gen. No./4744. A.G.2.B.

⁴ 27/Gen. No./4507. A.G.2.B.

medically examined, attested, and appointed at once to any corps open for enlistment, or, if he desired, he might be attested, registered and classified, and allowed to return to his home until the group in which he was classified was called up for service.¹ In the latter case, when the man was called up he would have the right to appeal to a local committee to be put in a later group. The committee, if they considered the claim legitimate, would put the man in such a later group as they might think fit. If a starred or a badged man enlisted, the Military Commander would at once give instructions for the man to be sent back to his employer, pending reference to the local committee, should the employer claim him and the man consent. Cases of disagreement must be at once reported to the War Office through the proper military channel for reference to the various Departments concerned.

This procedure did not appear to give adequate protection to the men required for munitions. A meeting, therefore, was held on 28 October of representatives of the Departments mainly concerned,² at which Sir H. Llewellyn Smith pointed out that a number of highly skilled workmen indispensable for the manufacture of munitions, such as millwrights, tool-fitters, and tool-turners, had been already enlisted, although they were starred and engaged in trades which recruiting officers had been instructed to exempt from enlistment. Lord Derby urged that such men should not be refused enlistment, but should be attested and sent back to their work grouped in a special class which should not be called up for active service in the Army. He asked for a policy of "give and take" in respect of the recruiting of starred men, and claimed that he ought to have power to challenge men in the starred occupations. Sir H. Llewellyn Smith maintained that if it were proposed to depart from the general principle that starred or badged men should not be enlisted, the matter ought to be brought before Lord Lansdowne's Committee. It was agreed to do this. In the meantime a telegram was sent out to all recruiting officers instructing them not to accept starred or badged men for enlistment except in accordance with the circular of 7 October.

On 29 October Lord Derby provisionally agreed with Sir H. Llewellyn Smith that a man who was starred or badged or engaged in a "reserved" occupation³ should only be accepted on condition that he was attested and placed in Army Reserve, Class B. If he were inadvertently enlisted for immediate service he should be discharged, unless he agreed to comply with that condition. If any question should arise whether he had been properly starred or was following a reserved occupation or need no longer be retained in civil employment, his pink form should be sent through the Registrar-General to the Department concerned, which should decide whether the man's

¹ Such men were transferred to Class B, Army Reserve, without pay or allowances, in accordance with Army Order XIV., dated 22 October, 1915.

² HIST. REC./R./322/134.

³ *I.e.*, an occupation which, though not included in the starred list, it was subsequently found necessary to exempt from recruiting.

retention was essential, unnecessary, or required further investigation. In the last event it would be remitted to the Local Tribunal. Pending a final settlement the man must not be called up for service.

This compromise appeared to afford the basis for a permanent settlement, but on the following day Lord Derby abandoned it and produced another scheme. He would refuse to attest any starred man. Badged men might be attested and placed in Reserve B, provided that they showed a written authority from their employers. But if any question arose concerning the starring of a man, the recruiting officer might refer it to the Local Tribunal for decision.

With respect to this, Sir H. Llewellyn Smith maintained that the Ministry of Munitions could have nothing to say to a proposal which did not give the Minister the final word as to the retention of workmen in munition trades. "We could not put this to the hazard of a Local Tribunal, except in cases which we ourselves considered doubtful."¹

On 3 November the National Register Committee considered the matter.² It was agreed (*a*) that no starred man should be enlisted for immediate service, but only for Army Reserve, Class B; (*b*) that no starred man should be called up with his group, unless it had first been decided, by some procedure to be determined, that he might be spared from his occupation; (*c*) that there should be two classes: (1) men starred for munitions work, (2) other starred men, men in reserved occupations, and men badged but not starred; (*d*) that no man in the first class should be taken for service without the consent of the Ministry of Munitions, but any case in the second class should go to the Local Tribunal, which would make a recommendation to a central committee.³ Lord Lansdowne suggested that this central committee might be constituted as a sub-committee of the National Register Committee, though not necessarily consisting of members of that body, and that individual members of the central committee, or commissioners appointed by the National Register Committee, might be empowered to hear cases independently with the help of two assessors, representing the War Office and the other Department concerned. This suggestion was generally agreed to.

Accordingly, on 6 November Lord Derby issued the following notice to the Press:—

"After consultation between the various Government Departments concerned, Lord Derby has now arranged that all men, whether authorised to wear an official war badge, or being men engaged in occupations essential to the national interest, and therefore starred on the National Register, may,

¹ *Letter to Dr. Addison*, 30 October, 1915. Copy in HIST. REC./R./322/134.

² *Minutes of National Register Committee*. HIST. REC./R./322/134.

³ On 9 November the National Register Committee agreed that men badged for munitions work but not starred should be treated in the same way as men starred for munitions work. It was agreed also that starred men in trades necessary for the production of munitions, though not actually employed on munitions work, should continue to be provisionally exempted from military service. HIST. REC./R./322/134.

if they are of military age and physically fit, be given the opportunity of offering themselves for His Majesty's Army and being attested as soldiers. Such men will only be accepted by recruiting officers if, before being attested, they agree to pass at once into the Reserve, and to return immediately to their civil occupations. A man accepted on these conditions will be entitled, as a soldier in the Reserve, to wear a khaki armlet, which will be given to him by the authorities. Such men will be called up for service if and when it has been decided by the competent authorities that it is no longer necessary in the national interest to retain them in civil employment."

This notice was agreed to by the Ministry of Munitions, subject to the addition of the last sentence.¹

Lord Derby's statement increased rather than allayed the unrest in the munitions factories. This seems to have been due partly to uncertainty concerning the authorities competent to decide whether a man should be retained in his civil employment or not, partly to a fear of industrial conscription suggested by the statement that the attested man was a "soldier in the Reserve." But the main cause was, no doubt, the reckless and unwarranted behaviour of many of the canvassers and some of the recruiting officers, who showed little respect for either stars or badges.²

In order to check the unrest in munition works, which was not only interfering with the output of munitions, but also threatening the success of Lord Derby's campaign, the following press notice was issued on 13 November, after the approval of Sir H. Mackinnon, Director of Recruiting, Sir R. Brade, and Sir H. Llewellyn Smith had been obtained :—

"It has been represented to the Minister of Munitions that misunderstanding exists as to the position under Lord Derby's scheme of men starred or officially badged on the ground that their services are required for munitions work. Recruiting officers are instructed that if such men present themselves for enlistment they must not enlist them for immediate service in any case. If such a man is enlisted through inadvertence, the recruiting officer has orders to take all possible steps to return the men to civil employment as soon as the case is brought to his notice. If, however, men starred or badged for munitions work desire, they may be attested, enrolled in Section B, Army Reserve, and sent back to their civil employment. Such men will be given khaki armlets. They will not be called up to serve with the Army unless the Ministry of Munitions at some future time decides that their services are more urgently required in the Army than for civil purposes. In the case of a man starred or badged as required for munitions work,

¹ HIST. REC./R./322/134.

² Cf. B.3552/1, B.5643, B.6586/1, B.13159, M.W. 65900. HIST. REC./R./322/132.

the decision on this point will rest with the Ministry of Munitions and not with a local Tribunal. In cases affecting Admiralty work the Admiralty will also be consulted."

Finally, it was represented from many quarters that a poster, embodying the substance of the above statement, if issued broadcast to munition works, would do much to allay the restlessness in the factories, and remove the suspicion that the Minister of Munitions and Lord Derby were not working wholly in agreement in the matter. The following statement was therefore prepared and shown to Lord Derby, who said he should like to get such a poster out and would sign it if Mr. Lloyd George first did so. The Minister's signature was obtained on 16 November, and Lord Derby signed the same day. The poster ran as follows :—

MINISTRY OF MUNITIONS.

ENLISTMENT OF MUNITIONS WORKERS.

No man officially badged or starred for munitions work may be enlisted for immediate service in the Army. Men so badged or starred may be "attested" for the Reserve on condition of returning to civil employment. They will receive the khaki armlet, and will not be called up for service unless at some future time the Ministry of Munitions decides that they are more urgently needed in the Army than for munitions work.

D. LLOYD GEORGE.
DERBY.

16 November, 1915.

XI. The Release of Badged and Starred Men Wrongfully Enlisted.

The control of the exemption of munition workers having been settled, one of the most pressing needs was some procedure by which badged or starred men who had been enlisted for immediate service might be returned to their employment. From Newcastle, for example, it was reported that a batch of 200 workmen employed on munitions went to attest under the Group System, but only 30 came back, the rest having been persuaded to enlist. At Crayford the work on machine guns was thrown out of gear by the enlistment of a foreman fitter. Similar cases were reported from all parts of the country. Sometimes the men were bluntly told that their proper place was at the front. More often they were informed that if they did not enlist at once they would have no choice of corps or regiment. It was therefore arranged that the Badge Department should forward the cases of badged or starred men who had enlisted since 23 October, and for whose return their employers pressed, to the War Office, A.G.2.B., which would then issue telegraphic instructions to discharge the man, if willing, from his engagement, to re-enlist him, if willing, for the Reserve and to send him back to his work. In every case the man would be informed that he was urgently needed for munitions work.

By the end of February, 1916, 626 cases had been forwarded to the War Office, and 444 men were reported as discharged. A similar arrangement was made with the Admiralty, but the number of men concerned was small.¹

If the man had enlisted before 23 October, 1915, or if he was neither badged nor starred, the matter was dealt with by the Release from the Colours Department.

With respect to men who had been starred in the National Register, or in the opinion of Somerset House should have been starred, and who had been enlisted for immediate service, it was arranged that their pink forms should be sent to the Badge Department. If the men appeared important for munitions work, and had been employed by badged or controlled firms, their employers were asked whether they desired to have the men back. If they did, the cases were dealt with in the same way as those of badged men. If they did not, the particulars were sent to the Release from the Colours Department, in order that action might be taken there if the men were willing to return to civil work and could be placed. During December, 1915, about 500 pink forms were received weekly from the Registrar-General. About one-fifth of these were selected in the manner described, and of these about one-fifth were asked for by their employers. In all more than 10,000 pink forms were examined in the course of the next six months; 892 cases were referred to the Release from the Colours Department, and 112 skilled men were released in consequence and placed on munitions work.

XII. Arrangements Relating to the Exemption of Munition Workers.

On 19 November, 1915, the Local Government Board issued its first instructions to the Local Tribunals and made public three days later the occupations which had been starred in the National Register or subsequently "reserved."

List A.—Occupations required for the production or transport of munitions supplied by the Ministry of Munitions.²

List B.—Coal Mining.

List C.—Agricultural, Railway, and certain occupations in Mining, etc.

List D.—Occupations (Reserved Occupations) of cardinal importance for the maintenance of some other branches of trade and industry.

Supplements to List D were issued on 29 November and 20 December, 1915.

¹ See Appendix V.

² List A included occupations required in shipbuilding and other work for the Admiralty.

The Tribunals were informed that men starred in accordance with List A, or badged for munitions work, were provisionally exempted from military service, and would not be called up unless the Ministry of Munitions decided that they were no longer required. It was open to the recruiting officer to challenge such exemptions. The matter would then be referred through the War Office to the Ministry of Munitions for decision.

A similar arrangement was made in respect of List B, except that the decision rested with the Home Office.

If, however, a man was starred in accordance with List C, or badged on grounds other than that he was necessary for munitions work, or alleged to be engaged in a reserved occupation, the recruiting officer might challenge him before the Local Tribunal on the ground that he was not engaged in a starred or reserved occupation or that it was no longer necessary in the national interest to retain him in civil employment. In that event the Tribunal's duty would be to investigate the facts and forward their recommendation to the Central Appeal Tribunal.

If a claim was made that a man should have been starred, the Tribunal would grant the application unless the recruiting officer refused his assent, in which case the Tribunal would investigate the facts and make a recommendation to the Central Appeal Tribunal.

If a man was not covered by any of the lists, the Tribunal could grant him temporary exemption only by placing him in a later group ; but no one could be put back more than ten groups.

From the point of view of munitions, these instructions were not quite satisfactory. A difference of procedure depended on the interpretation of "munitions work," which was in fact a very elastic term. The assumption underlying the instructions was apparently that a man was not engaged on munitions work unless his occupation was included in List A. But this assumption was not tenable. For example, of the men necessary for the production of steel only workers actually engaged in the manufacture of furnace bricks, pig iron, and steel were included under List A. Men employed in the making of coke and the mining of hæmatite ore were covered by List C. Quarrymen of ganister and fire-clay and iron ore miners appeared in List D. But limestone quarrymen and the makers of crucibles were omitted entirely, nor was any place found in any of the lists for managers or technical clerks and assistants. It is doubtful, indeed, whether more than two-thirds of the men necessary for the output of munitions were included under List A.

If the military authorities wished to challenge the retention of a man badged or starred for munitions work in his civil employment the procedure was as follows :—The recruiting officer filled in a form,¹ giving the necessary particulars concerning the man, his employer, and the work on which he was engaged, and stating the reason of the

¹ Form M.M. 1.

challenge. This form was forwarded through the War Office to the Badge Department, which communicated with the firm and enquired into the man's experience and degree of skill, how long he had been employed by the firm, what work he was engaged on and whether he could be replaced by a woman or a man ineligible for military service. If the firm's reply was insufficient to form a decision, the matter was referred to an inspector. If the military appeal was sustained, the man and his employer were informed that the Ministry had decided that it was no longer in the national interest that he should be retained in his civil employment, but this decision was given solely from the point of view of the Ministry of Munitions and must not be taken to prejudice any application on other grounds which he or any person on his behalf might be entitled to make to a Local Tribunal.

These appeals at first came in slowly; subsequently the inflow was more rapid, but it was checked by the general scheme of badge inspection, which was set up in March, 1916. Many recruiting officers challenged with discretion, but some did not. For example, a skilled engineer was challenged who had come back from Canada to do munitions work and was engaged on 9·2 howitzer carriages¹; an appeal was made against a toolsetter—"a gross case of a man shirking his responsibilities and a bad example to others"²; objection was taken to a draughtsman passed for Home Service only and engaged on intricate work in connection with submarine defences for the Admiralty.³ Appeals involving 2,778 men were made under this procedure up to the end of August, 1916, of which more than 2,000 were made in April and May. Of the men challenged, 588 are recorded as released and 575 as retained on the decision of the Badge Department, and 896 as disposed of after inspection. The statistics are, unfortunately, incomplete. But though some cases may have been overlooked, it is probable that the majority of those not accounted for were dealt with in connection with the regular badge inspections in the summer of 1916.

Early in December, 1915, the Minister of Munitions sent out a circular letter,⁴ stating that he had been asked by the Army Council to request employers to whom war service badges had been issued to send to the local recruiting officer a list, showing the names and occupations of the men entitled to wear these badges. The object was threefold—to ensure that such men should not be enlisted for immediate service, to prevent their being called up with their groups if they attested, and to afford a check on any person who might have obtained a badge improperly.

On 17 December it was officially announced in the press that a mark was placed in the Army Register against the name of any man starred, authorised to wear a war service badge issued by the Government, or actually engaged in a reserved occupation.

¹ B.11999/1.

² B.13476/1.

³ B.38/1.

⁴ HIST. REC./R./322/139.

On 20 December a second letter¹ was sent by the Ministry to the badged firms, informing them of the steps which should be taken if a man starred, badged, or entitled to be starred should inadvertently be called up. In such cases the notice paper should be returned to the military authorities along with a certificate stating that the man was starred or badged or that an application had been made to the Local Tribunal for a declaration that he should be treated as a starred man.

Apart from the safeguards which these arrangements afforded against the dislocation of munitions work by voluntary recruiting, they contributed to the success of the Derby Scheme and simplified the exemption of munitions workers from compulsory military service. After the pledge given by Lord Derby and Mr. Lloyd George on 16 November, firms engaged on munitions contracts were able to encourage their men to attest without misgivings. Although the starred and badged men who attested were for the most part unlikely ever to serve in the field, they gave momentum to the recruiting campaign in the great industrial centres, and revealed the real dimensions of the minority to whom voluntary service did not appeal. In this way they facilitated the passage of the Military Service Acts. At the same time the arrangements for their exemption were capable of adjustment to the new conditions without any break of continuity in policy or administration; and consequently the transition from voluntary service to compulsion was effected without in any way disorganising the munitions programme.

¹ Circular *Attestation 2*. HIST. REC./R./322/139.

CHAPTER III.

THE INDUSTRIAL INCIDENCE OF THE MILITARY
SERVICE ACTS, 1916.**I. The First Military Service Act—Certificates of Exemption.**

On 5 January, 1916, in fulfilment of his pledge that the Government would ask for compulsory powers if a substantial number of unmarried men refused to offer their services to the State, and unless these powers were granted the married men who attested would be released from their obligations, Mr. Asquith introduced¹ the first Military Service Bill. Lord Derby's report,² dated 20 December, 1915, had been made public the day before. In it he stated that between 23 October and 15 December, out of 5,011,411 men of military age 2,829,263 had offered themselves, of whom 215,431 had enlisted for immediate service, 2,184,979 had attested under the group system, and 428,853 had been rejected on medical grounds.³ Of those who had attested, after making deductions in respect of starved men, other men required to maintain necessary services, and unfit men accepted without medical examination during the last crowded days of the campaign, he estimated that only 343,386 single men and 487,676 married men would be found available for service in the field. On the other hand, he calculated that 1,029,231 unmarried men had not offered themselves, of whom 651,160 were not starved. He maintained that this number was far from negligible, and unless the services of these men were obtained by other means the married men who had attested could not be held to their obligations. In this opinion Mr. Asquith, while admitting considerable deductions on account of unfitness and other circumstances, concurred.

The Military Service Bill affected the Ministry of Munitions in two important respects. It gave the Department power to grant certificates of exemption from military service, and it made certain

¹ *Parliamentary Debates* (1915), *H. of C.*, LXXVII. 949.

² *Cd.* 8149.

³ Lord Derby added to his report the following figures for the period 11 October to 19 December, during which he had been responsible for recruiting, and including belated returns of 61,651 attested men :—

Enlisted for immediate service	275,031
Attested under group system	2,246,630
Rejected on medical grounds	428,853

Total	2,950,514
-------------	-----------

provisions, designed to prevent industrial conscription, which helped materially to reconcile Labour to the Bill, but by delaying the summons to the Colours of men who were no longer required for munitions work afforded means of evasion which seriously hampered the recruiting authorities.

On the Bill, as first drafted, Sir H. Llewellyn Smith wrote on 31 December to Mr. Lloyd George¹ :—

“I have seen the Bill. As I feared might be the case, it sweeps away all our safeguards for ‘starred’ and ‘badged’ men. This will never do. The crucial point of our agreement with Lord Derby was that no man required for munitions work must be enlisted without our consent. There is no provision for this in the Bill. ‘Certificates of Exemption’ have to be applied for ‘by or on behalf of’ the man himself (who frequently would prefer to enlist, and therefore will not apply), and they are to be granted at the discretion of Military Service Tribunals and not of the Ministry of Munitions. I sincerely hope this will be put right, or the Bill will deal a deadly blow at munitions work.”

This defect was rectified before the Bill was introduced. By Clause 2 (2) a Government Department was empowered, after consultation with the Army Council,

“to grant certificates of exemption to men, or classes or bodies of men, in the service or employment of that Department, or to men or classes or bodies of men employed in any work which is certified by the Department to be work of national importance and which comes within the sphere of the Department.”

Considerable opposition was shown to the first part of this clause.² It was urged that the employees of Government Departments should go to the Tribunals for exemption like other people. But the question was not pressed to a division. Mr. R. McNeill proposed to omit the second part of the clause.³ He argued that it would take all the great trades of the country out of the hands of the Local Tribunals, although no Government Department had the machinery for deciding whether this or that individual could be spared or not. Mr. Samuel replied⁴ that it was necessary to keep large classes of men, such as miners, merchant seamen, railwaymen, and the workmen in munitions factories out of the Army. Individuals here and there might be spared, but the bulk must be retained. The exceptions would be dealt with by the special tribunals for miners and the analogous machinery of the Board of Trade and the Ministry of Munitions. Mr. McNeill did not approve of such tribunals.⁵ They were not outside the trades or industries concerned, and could not

¹ HIST. REC./R./322/134.

³ *Ibid.*, 507 seq.

² *Parliamentary Debates* (1916),
H. of C., LXXVIII. 488 seq.

⁴ *Ibid.*, 511.

⁵ *Ibid.*, 514.

form an impartial judgment on the facts. The opposition, however, was defeated by 238 votes to 24.

The Government then proposed¹ to amend Clause 2 (2) by limiting the issue of certificates of exemption by a Government Department to cases "where it appears to a Department that certificates can be more conveniently granted by the Department than by the Local Tribunal," and by extending the issue of certificates to men qualified for employment, as well as to men employed, on work of national importance. The limitation was intended to conciliate the critics of departmental exemptions, and the extension to safeguard for munitions the reserves of skilled mechanics still engaged on private work. Both amendments were agreed to.

The Government also introduced Clause 2 (5)² :—

"Any Government Department may direct that any certificates granted by or on behalf of that Department before the appointed day as to employment on work for war purposes may be treated as certificates of exemption for the purposes of this Act."

This amendment, by which it became possible to convert the certificate, issued with a war service badge, into a legal certificate of exemption from military service, was agreed to without argument and without discussion.

II. The Meaning of Industrial Conscription.

In the debate on industrial compulsion several notions were at the back of men's minds, though they were not sharply defined. The most obvious was the fear that unscrupulous employers might use the liability of their workmen to military service on dismissal as a means of preventing demands for higher wages or better conditions, and of punishing any men who had in the past given voice to such demands. The Government pledged themselves to prevent such an abuse of the Act, so far as any statutory provision could prevent it, and several amendments were introduced into the Bill by which it was sought to dis sever the ground of a man's claim to exemption from military service from his employment by any particular employer, and to give a man who had been dismissed ample time to obtain other employment. These amendments, no doubt, met the case, provided that the man possessed such technical qualifications as were keenly demanded in industries of national importance.

Another possibility was that the State might attempt to coerce the workman by threatening to send him to the trenches if he refused to work where, how, or for whom he was told. This fear was not definitely expressed, although it underlay much that was said. But it can hardly be doubted, from the tenor of the debate, that if the Government had been challenged they would have explicitly repudiated such an intention. Throughout they emphasised the fact

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 519-523.

² *Ibid.*, 566.

that the purpose of the Bill was purely military—to obtain soldiers. In any case, this possibility was closed by the above-mentioned amendments.

Thirdly, the Bill aroused the fear that men who had been enlisted in the Army, and were subject to military law and military courts, might be employed in large numbers in munition works, and used, not merely to break strikes if necessary, but to lower wages and to introduce oppressive conditions of labour. More than one reference was made to the way in which the French Railway Strike was broken by M. Briand. It was alleged, though no proof or example was offered, that soldiers released from the Colours had already had the effect of depressing wages. The Government denied any such intention, and Mr. Bonar Law said¹ :—

“Hon. gentlemen seem to fear that the Army might be used to put down strikes. Such a thing would be deplored as much by my hon. friends on that side of the House as it would be by the hon. gentlemen on this side. I honestly believe that we certainly do not want to put down strikes by the military.”

Behind all these notions was the vague fear that the State, having adopted compulsion for the Army, might then attempt to treat the workman like the soldier, and order him to work where it thought best. Disobedience might be subject merely to civil penalties, or dealt with under martial law by a military court. The Minister of Munitions was generally believed to desire industrial conscription of this kind, and to have attained something like it through the provisions of the Munitions of War Act, by which workshop rules were enforced and the workman was bound to his employer. The Government were content to insist that no compulsion of this sort was introduced by the Military Service Bill, the object of which was purely military.² No pledges of any kind appear to have been given in respect of such a scheme ; but with the exception of two or three speeches by private members the opinion of the House seemed strongly adverse to any such method of organising labour.

III. The Bill Amended in Order to Prevent Industrial Compulsion.

In the course of the debate on the introduction of the Military Service Bill several members expressed their fear that the Bill might be used for industrial conscription. Mr. Hodge asked³ for a guarantee that soldiers should not be introduced into munition works by means of the Bill with the effect of depressing wages. Mr. Dillon anticipated⁴

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 957.

² Mr. Bonar Law said : “I can assure the House that the Minister of Munitions does not wish this Bill to apply to industrial purposes.” *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 957.

³ *Ibid.*, LXXVII. 980.

⁴ *Ibid.*, 1053.

that the power of calling a man up for military service would be extensively used in the factories as a means of maintaining discipline. "You must obey your master and do everything he orders, or you go to the trenches."

Mr. Anderson, in opening the debate on the Second Reading on 11 January, devoted a large part of his speech to industrial compulsion.¹ The Bill had originated in ideas which had been germinating in the mind of Mr. Lloyd George for some time. He quoted from a speech made by the Minister of Munitions at Manchester in June, 1915, in which he said, speaking of soldiers:—

"Their time, their movements, their direction, the very localities where they operate are chosen for them by the officers of the State. Their very lives are at the disposal of the State. They have placed them voluntarily too. That enables those who represent the State to concentrate them, to order them to places or to positions where they can render the greatest service to the State. That is what a voluntary army in a military sense means; I am sorry to say it does not mean that industrially."

The Bill, Mr. Anderson contended, would place the single men under the control of the Military Service Tribunals, which could review, withdraw, or vary at any time the exemptions which they granted. "When a man's working conditions change, he automatically becomes a soldier. If a man fails to report his change from workshop to workshop he places himself under martial law, and becomes subject to the penalties of martial law." The measure meant the subjection of the workpeople to private capitalism in the workshops, and would give the employers more power to deal with wages, hours and conditions than they ever had before. "And the working people will be helpless, because if they resist they can at once be sent as soldiers inside barracks."

The Prime Minister replied² that nothing was further from the intentions of the framers of the Bill than that it should be used, or should be capable of being used, as a form or an instrument of industrial compulsion. But whatever their intention might have been, it was most important to see that the Bill would not have that effect. Many people no doubt feared an unscrupulous employer might dismiss a man who had taken an active part as a trade unionist in movements for the rise of wages, or for the improvement of the conditions of labour; "thereupon, he loses his certificate of exemption, unless he can get re-employment at once in a similar trade and he becomes *ipso facto* a soldier, and subject to military law." Such a case, Mr. Asquith believed, would be rare. But, he went on,

"I agree it is a case that ought to be met—our intention is that the Bill should not be used, and should not be capable of being used for any form of industrial compulsion—and we are

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 1460 ff.

² *Ibid.*, 1661 ff.

engaged, and I hope our efforts may be successful, in devising machinery and safeguards which will prevent the possibility of evasion and of any such abuse of the measure by any employer who may be so minded. May I appeal to the good sense of my fellow-countrymen, and particularly to those engaged in industry, to recognise that nothing could be further, not only from the intentions of the Government, but from any conception of a wise and statesmanlike policy at a time like this, than to furnish, even indirectly, either employers or workmen with new ammunition to be expended, not in defence of their country, but in pursuit of internecine industrial strife? We want to husband, to co-ordinate, and to concentrate the whole strength of the country on an undivided purpose, and I need not say that we are willing and more than willing, anxious and eager, to receive any suggestion that may come from any quarter to render the possibility of such an abuse absolutely inconceivable."

Three amendments were made in Committee to meet this danger. The words "in which he is habitually engaged or in which he wishes to be engaged" were added after "work" in Clause 2 (1) (a), so that the provision ran¹—

"An application may be made . . . by or in respect of any man (a) on the ground that it is expedient in the national interests that he should, instead of being employed in military service, be engaged in other work in which he is habitually engaged or in which he wishes to be engaged."

Mr. Samuel explained² that this amendment would be of value if a man were dismissed by his employer, refused a leaving certificate, and thus prevented from obtaining employment for six weeks; for it would enable the Tribunal to grant a certificate of exemption on the ground that he was habitually engaged in a trade of national importance or wished to be so engaged, although he was not employed in it at the moment.

In Clause 2 (3) Sir John Simon proposed to add the words³:—

"No certificate of exemption shall be conditional upon a person to whom it is granted continuing in or entering into employment under any specified employer or in any specified place or establishment."

This amendment was accepted in principle by the Government, but not actually incorporated in the Bill until the Report stage.⁴

The third amendment was made in Clause 3 (3), which originally ran as follows:—

"Where a certificate of exemption ceases to be in force owing to the withdrawal of the certificate or the failure to

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 317 ff.

² *Ibid.*, 335.

³ *Ibid.*, 558.

⁴ *Ibid.*, 989.

comply with the conditions on which the certificate was granted or the expiration of the time for which the certificate was granted, the man to whom the certificate was granted shall, as from the date on which the certificate so ceases to be in force, be deemed to have been enlisted and transferred to the Reserve in the same manner as if no such certificate had been granted."

In this clause Mr. Long proposed¹ to insert after the word "from" ("as from the date") the words "the expiration of six weeks after." The object of this amendment was to give a man who had left or been dismissed by his employer time to obtain other work, which would entitle him to the renewal of his certificate of exemption. It was pointed out that the period of six weeks was too short, since, under the Munitions of War Act, a man who could not obtain a leaving certificate was debarred from employment for six weeks. Mr. Long, therefore, consented to extend the period to two months.² Thus two months' grace was given not only to the man whose certificate lapsed owing to his change of employment, but also to the man whose certificate was withdrawn on the ground that he was no longer required in his trade.

IV. The Conversion of the Badge Certificate into a Certificate of Exemption, and the Exchange of W.M.V. and Admiralty Badges.

The Military Service Act, which became law on 27 January, 1916, gave a new importance to the badge certificate. In order to save trouble to all concerned, it was decided³ that any official certificate duly held on 1 March, 1916,⁴ with a badge issued by the Admiralty, the War Office or the Ministry of Munitions, should be treated as a certificate of exemption for the purposes of the Act. Such a certificate might be varied or withdrawn at any time by the Ministry of Munitions on the application of the man who held it or of the military authorities; but it continued in force unless it was so varied or withdrawn. It did not lapse because a man left the service of a particular employer. As a safeguard against industrial compulsion, he retained his certificate, although he surrendered his badge. If, however, a man was permanently taken off war work it was the duty of the employer to inform the military authorities, so that they could, if they thought fit, appeal to the Ministry of Munitions to have his certificate reviewed.

At the same time the Minister of Munitions certified that the work of men employed in the occupations of List A was work of national importance. Any man, therefore, who was so employed might appeal to a Local Tribunal before 1 March for a certificate of exemption

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 574.

² *Ibid.*, 575.

³ See Appendix VI.

⁴ Subsequently, in view of the Ministry's abandonment of "starring" as a means of protecting munitions occupations after 1 May, 1916, the War Office agreed that a badge certificate should exempt a man from military service irrespective of the date of its issue.

on the ground that his principal and usual occupation was one of those set out in this List. If the Tribunal was satisfied that his claim was valid, it was required to issue the certificate, whether he was engaged on war work or not.¹

War Munition Volunteers were put to some trouble by these changes. When the Ministry of Munitions undertook the issue of badges, it was decided to issue a badge of a special kind to the Volunteer. On enrolment he received one of these badges, which he exchanged on transfer to war work for a more ornate badge of the same pattern. Firms were instructed, when they applied for war service badges, to exclude War Munition Volunteers, on the ground that they were already provided for; but this led to trouble, for the majority of the Volunteers were never transferred, being already engaged on war work when they enrolled. And they demanded the war service badge because, as they said, they were employed on war work, and were not merely volunteering to do it. After some negotiation it was decided, in November, 1915,² that the enrolment badge might be exchanged for a war service badge, but the transfer badge was not exchangeable. When, however, the Military Service Act was passed it was not found convenient to declare the War Munition Volunteer certificate a certificate of exemption for the purposes of the Act. Consequently, Volunteers subject to the Act could only secure exemption by obtaining either war service badges before 2 March or certificates from the Local Tribunals. Those who had attested were similarly placed.³ The bulk of the exchanges consequent upon this reversal of policy were carried through in time. But accidents of various kinds and the negligence or ignorance of employers caused no small amount of trouble in this matter, and some useful men were lost, so far as munitions work was concerned.

The exchange of unnumbered Admiralty badges was a more formidable task. Until December, 1915, firms which held the unnumbered badges had been informed that these were valid in all respects, but if they desired to exchange them the Ministry of Munitions was prepared to effect the exchange, provided that the ordinary form of application was satisfactorily filled up on behalf of the men concerned. A number of firms pressed for exchange on these conditions, partly because, in some parts of the country, recruiting officers were apt to question a man's right to wear an unnumbered badge, and he had no certificate to vindicate his claim; partly because some of the men demanded the oval munitions badge as newer and consequently of greater value. These exchanges were most common where some

¹ See Appendix VII. These arrangements in respect of men subject to the Act were made known in a circular (M.S.A.1) which was sent to all badged firms, and in a leaflet (M.S.A.2) drawn up for workmen, which was circulated through the Labour Exchanges. The corresponding changes relating to voluntarily attested men were made known in a supplementary note (Attestation 3) to the Ministry's letter of 20 December, 1915 (see p. 55). HIST. REC./R./322/139.

² B.12165.

³ Except that in their case the last day was 31 March, 1916.

of a firm's employees had badges of the one kind and some badges of the other kind.

In the course of Lord Derby's campaign, the Admiralty became convinced that it was important that their men should have numbered badges accompanied by certificates. Accordingly, early in December they communicated with the firms to whom they had issued badges, inviting them to apply for an exchange as soon as possible. The majority of the Admiralty firms were in no hurry to respond; but the introduction of the Military Service Bill in January made haste imperative. Consequently, there was a rush, and very large exchanges were effected in the middle of the month.

These exchanges led to an unfortunate incident in the House of Lords, which contributed more, perhaps, than anything else to the common idea that badges were issued recklessly to any firm which chose to ask for them. On 25 January, in the debate on the Military Service Bill, Lord Derby said,¹ in a speech which naturally received the widest publicity:—

“I am bound to say that I am infinitely more frightened of the action of the Government than I am of the action of the Tribunals in reducing the numbers (of men made available by the Bill). I think this is a matter to which His Majesty's Government ought to give the most careful consideration. I do not want to enter into the vexed question as to how many men are required for industry and how many for the Army, but the fact remains that since my report was written no less than four lists of reserved occupations have come out, and, although it is impossible at the present moment to analyse to whom the badges were given—many may have been given to starred men, men over age, and men who would naturally have been starred and reserved—it cannot help giving me some apprehension when I know that no fewer than 100,000 badges were issued in four days last week.”

The facts were explained to Lord Derby without delay, and the following night he read a letter from the Minister of Munitions,² which did not, however, obtain the publicity of the original charge.

“The figures for last week were apparently large, because in the course of it we issued a very large number of war service badges in exchange for unnumbered Admiralty badges, which we are now in course of withdrawing. I find that on the four heaviest days of last week (18-21 January) we issued rather over 108,000 badges, but of these over 100,000 were merely issued in exchange for returned Admiralty badges, the net issue being only about 8,000.”

In order to protect the employees of firms who had neglected to effect the exchange or whose applications might have been

¹ *Parliamentary Debates* (1916), *H. of L.*, XX. 1005.

² *Ibid.*, 1077.

overlooked, the Admiralty issued during January, 1916, numbered certificates to many of their firms. These certificates were intended to be merely temporary, and to be returned to the Admiralty as soon as the exchange for war service badges had been made.

Unfortunately complete statistics of the exchange are not available. Before 31 July, 1915, the Admiralty had issued 348,295 unnumbered badges to their contractors, and by 28 April, 1916, they had issued 115,000 badges to the Dockyards and the Mercantile Marine, in all 463,295. It is estimated that 320,000 numbered badges were issued by the Ministry of Munitions to replace the unnumbered badges granted by the Admiralty to their contractors. But not more than half of the latter were returned to the Ministry. The losses were due to various causes. Many men were careless. Large employers were slow to set up the machinery necessary to keep proper records of badges issued and to recover them from men on leaving. Labour was very mobile in such branches of Admiralty work as ship-repairing. If a man lost his badge there was no means of identifying its rightful possessor. In spite of greater precautions the loss of munitions badges was also high; and it is perhaps to be regretted that the original plan of requiring a deposit on the issue of a badge was not carried out. It is doubtful, however, whether serious evils arose from these losses, partly owing to the vigilance of public opinion, but mainly because the certificate, not the badge, gave legal exemption from military service.

V. The Revision of Badges and the Promotion of Dilution, March, 1916.

Early in February, 1916, Mr. Tallents, who was then in charge of the Badge Department, raised the question whether the Ministry should not of its own accord set men free for military service and encourage the substitution of women for men by withdrawing the badges of men employed on work which could be done by women. On 16 February Sir H. Llewellyn Smith wrote¹: "From the general point of view of national interests, substitution of women in industry for men of military age and fitness is to be encouraged." A week later Mr. Tallents drew up a note,² in which he stated that experience had shown that women could be substituted for men, after a very short training, in various branches of munitions work which were thought to be essentially men's work when badges were issued. He went on to suggest that if the dilution officers reported that certain work in a particular establishment could be done by women, and the women were available, the firm should be informed that the badges of the men involved would be withdrawn. "Hitherto we have taken the line that it should be left to the military authorities to bring cases of this kind to our notice on appeal. It seems to me now to be clear that the military authorities are not likely to do this work on any

¹ C.E. 1013/28.

² M.W. 90939.

adequate scale unless we take the initiative to help them." On 27 February Sir H. Llewellyn Smith expressed his agreement with the principle laid down, but said that before a definite scheme of action was put forward the matter must be laid before the Minister.

On 11 March instructions¹ were issued to the dilution inspectors with reference to the withdrawal of badges. They should report all cases where they found badged men who were not occupied three-quarters of their time on important war work, or whose work could be done by female or other ineligible labour, and for whom substitutes could readily be found. If the men were skilled they should be transferred to proper work elsewhere; if they were not skilled, but of military age and fitness, they should be recommended for release to the Army; if they were ineligible for military service no withdrawal need be recommended, so long as they were kept on useful war work. The inspector might ask for the help of the firm in drafting his list of men who could be spared, but he must be careful to avoid "victimisation" or even the appearance of it.

About this time it was arranged that the Admiralty and the War Office should inspect those firms in which they were principally interested. Shortly afterwards the Labour Exchange organisation was brought in to help.²

The inspectors' reports were sent to the Labour Supply Department of the Ministry, where the adjudicators considered their recommendations and confirmed or modified them, consulting if necessary the officers of the Badge Department. A list was then sent to the firm of the men whom the Ministry agreed to release, showing on what date their certificates of exemption should be withdrawn. At the same time a copy of this list was sent to the recruiting officer, and a letter was sent to each man to let him know formally the action which the Ministry had taken. These arrangements, which required close co-operation between the officers responsible for dilution and exemption from military service, were facilitated by the migration of the Badge Department on 21 March, 1916, from Abingdon Street to Whitehall Gardens.

VI. The Cabinet Committee on Exemptions. Proposals to Limit the Ministry's Control of Badges, April, 1916.

The Military Service Act did not realise the expectations which had been based on it. The inflow of recruits failed to meet the needs of the Army. The exemptions granted by the Tribunals and the Departments of State exceeded such estimates as had been made

¹ HIST. REC./R./322/137; L.E. 7776/2; C.O. Circ. 2384.

² On 3 April, 1916, it was reported that 50 dilution and Labour Exchange inspectors were giving all their time, and 59 part of their time, to the revision of badges, 45 War Office inspectors and 300 Admiralty inspectors part of their time to the same purpose. Besides these, assistance was being given by the Home Office Factory Inspectors, and inspectors of the Home Grown Timber Committee and the Optical Munitions Department of the Ministry.

from the imperfect data available. The antagonism between married and single men aroused during the Derby Campaign was aggravated, partly by the efforts of individuals here and there to evade military service, but mainly by the ignorant assumption of the man in the street that his neighbour was doing work of less value to the State than himself, or was subject to less pressing obligations to others. People who had been led to expect that compulsion would remove the anomalies of voluntary recruiting found equality of sacrifice as remote as ever from attainment. The claims of the attested married men, which had been used to justify the compulsion of all single men, were now turned with equal logic against those married men who had not attested, in order to make compulsory service universal.

At the instance of Lord Derby, who believed that many men who ought to be released were being exempted, the Prime Minister appointed a Committee of the Cabinet, with Mr. Long as Chairman, to sit as a final court of appeal on the policy governing exemptions.¹ At its first meeting on 20 March the Reserved Occupations Committee² proposed to amend their lists, mainly by raising the age limits, and to confine all reservations to persons engaged in the reserved occupations prior to 15 August, 1915, the date of registration. It was estimated that the amendments suggested would set 70,000 men free for military service. These proposals were accepted by the Committee. Sir H. Llewellyn Smith then explained what the Ministry of Munitions was doing or intended to do in conjunction with the Admiralty. A system of inspection with a view to withdrawing badges had just begun; some of the starred occupations were being defined more precisely; others were under consideration with the object of unstarving men still engaged on private work; finally it was proposed to abolish "stars" as a protection after 1 May, 1916, and to exempt only men who were badged or the subject of an application for badges. This involved the sacrifice of the Ministry's reserves of skilled labour, since badges could only be issued to men actually engaged on war work. After some discussion it was unanimously agreed to accept the proposals of the Ministry of Munitions.

The War Office, however, was far from satisfied with the concessions made by the Ministry, and attempted to limit their control of exemptions in two ways. It was urged that the Local Tribunals should have power to decide whether a man was properly badged, and an effort was made to place the final authority for the issue and

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXI. 793. The Secretary of State for War, the Secretary of State for Home Affairs, the Presidents of the Board of Trade and the Board of Agriculture, Lord Derby, the Adjutant-General, the Permanent Secretaries of the War Office, the Admiralty, the Home Office, the Local Government Board, the Ministry of Munitions and Mr. F. H. McLeod, Chairman of the Reserved Occupations Committee, were as a rule present at the meetings of this Committee. Mr. Lloyd George also attended on 13 April, 1916. HIST. REC./R./322/143.

² A Committee appointed to recommend occupations, not included in the starred list, which were of importance for the maintenance of the export trade and the general economic strength of the country.

inspection of badges in the hands of some committee beyond the control of the Ministry.

On 13 April the Cabinet Committee considered¹ a proposal that no department should be allowed to grant certificates of exemption; all certificates so issued should be withdrawn forthwith; and the Tribunals should be the absolute and only authority for exemptions. This change, it was urged, would remove a distinct grievance. Mr. Lloyd George said it was grotesque to suggest that every man should be dragged before a Tribunal to prove that his work was indispensable. Moreover, if this proposal were adopted it would be a distinct breach of the pledge given by Lord Derby and himself that men in munition works should not be called up for military service without reference to the Ministry of Munitions. Lord Derby said he did not wish every man to go before a Tribunal, but the employers should justify to a Tribunal the number of badged employees said to be engaged on Government work. Subsequently, on 28 April,² he returned to the suggestion. He was certain that employers and Tribunals would come to an understanding which would result in the release of thousands of men. If objections were raised the Ministry of Munitions could enquire into the matter, and the men should not be taken unless a settlement was reached. The representatives of the Ministry replied that the employer's interest was not always the national interest; men who were not needed in one factory might be needed in another. Nor could a local Tribunal judge in such a case, since it could not have full knowledge of the national requirements. Mr. Long agreed that no Local Tribunal could review individual badges properly without surveying the whole needs of the Ministry of Munitions. But it did not follow that there was not some other body to which a dispute might be referred. A common criticism in the House of Commons was that the Government protected itself by putting on committees men who were at once judges and plaintiffs.

Accordingly, it was suggested that the control of the issue and withdrawal of badges should be given to a committee on which the opinion of the Ministry would not be decisive. The first proposal of this nature, made by Mr. Long on 13 April,³ that a committee representative of the War Office, the Ministry of Munitions and the Home Office should be appointed to consider the reports of the badge inspectors, was opposed by Mr. Lloyd George on the ground that a badge committee already existed. But it was agreed that the Badge Committee should meet and make their own recommendation for their future procedure.

In accordance with these instructions a meeting of the Badge Committee was held on 17 April.⁴ It was unanimously agreed that it was not practicable for the Committee to examine individual applications for badges. It was agreed that the Committee should meet weekly or at such intervals as might from time to time appear desirable, and that their main functions should be to consider (a) returns of

¹ HIST. REC./R./322/143.

² *Ibid.*

³ *Ibid.*

⁴ *Ibid.*, 127.

badges issued, with suitable details as to industry, age, etc.; (b) returns of inspections; (c) questions of principle arising out of the issue or withdrawal of badges. It was also agreed to recommend that the Committee should consist of five members representing the Admiralty, the War Office, the Reserved Occupations Committee and the Supply and Badge Departments of the Ministry of Munitions, together with an independent Chairman to be appointed by the Cabinet Committee. Finally, it was agreed that the Badge Committee should report from time to time to the Cabinet Committee.

Sir H. Llewellyn Smith sent this report to the Minister the next day with a minute¹ in which he said that no objection need be taken to the nomination of an independent Chairman, provided that the functions of the Committee remained purely advisory. If, however, the Cabinet Committee should try to make the reconstituted Badge Committee executive, the Minister would lose control of the issue of badges, and this, in his opinion, ought not to be agreed to.

On 20 April Mr. Long's private secretary, Mr. F. L. Turner, wrote as follows to Mr. Tallents²:—

"Mr. Long is much obliged for your report of the Badge Committee. He feels, however, that it is important that the Committee should consider the procedure under which badges are now issued, and whether that procedure should be amended. He feels that what is wanted is supervision before issue. . . . He also thinks that the Badge Committee ought to meet not less frequently than twice a week. As regards the composition of the smaller Committee, it occurs to him that probably the representative of the Admiralty and the two representatives of the Ministry of Munitions would be concerned officially with the supply of badges, and that, therefore, the unconscious bias of the majority of the proposed Committee tends towards badging rather than towards unbadging. He does not, of course, suggest that any of the members would be other than impartial, but he thinks that this Committee should be formed on an equality of biases with an independent Chairman."

On 26 April, 1916, Mr. Lloyd George wrote as follows to Mr. Long³:—

"I saw the report which the Badge Committee made to your Cabinet Committee, and was prepared to accept it as a settlement. But I gather that it is now proposed to go beyond that report and to give the Military Authorities on the Committee representation equal to or greater than that of the Admiralty and the Ministry of Munitions. The effect will be to make the Committee not (as it should be) representative of the best knowledge and experience as to the needs of munitions work, but a body constructed on the principle of balancing

¹ Copy in HIST. REC./R./322/143.

² *Ibid.*

³ *Ibid.*

opposite 'biases.' This, I think, is a retrograde proposal, which will result not in order, but in chaos. I gather, further, that it is desired to give this body, by means of bi-weekly meetings, a semi-executive character. I think, therefore, I must define my position in the matter rather more clearly.

"When, at the urgent request of the Army Council, I took over the duty of badging from the War Office, I was careful to make it clear that, while I would always welcome and give due weight to any advice I might receive from the Badge Committee, the executive authority must rest with me. On no other terms would I have taken over the responsibility. In this view the Army Council, while urging that the greatest possible weight should be attached to the Committee's advice, definitely concurred. Since then the position has been defined by the Munitions of War Act under which the statutory responsibility for badging is thrown upon me.

"The Badge Committee at first met regularly and their advice as regards the principles on which the badges should be issued was of great value so long as principles had to be settled. When these had been laid down the Committee ceased to meet except when new questions of principle came up for consideration. At the present time changes in industry and the increased demand for men have given a new importance to the question of badges; and I agree that it is desirable that the Badge Committee should again meet regularly, and that its constitution should be modified. With some hesitation I should have been prepared to accept the recommendations as to their future proceedings made by the Committee themselves. I understand that this Report was agreed to unanimously at a meeting at which Sir Henry McKinnon with two other officers represented the War Office.

"The proposals contained in Mr. Turner's letter go far beyond the terms of this Report, and if they are persisted in I am afraid I shall have to oppose them, and if necessary to appeal to the War Committee against their adoption.

"I do not doubt that the Badge system wants putting on a firmer footing in view of all the changes that have taken place lately as regards exemption from military service; and we are in fact reorganising our arrangements to meet these changes. We are also making great efforts to get all badged firms inspected. This work, which in any event must put a great strain on the Badge Department, needs to be pressed forward with the greatest speed. If, however, the officers in charge of the department have to attend bi-weekly meetings of the Badge Committee, the work of the department will be practically brought almost to a standstill, and the first to suffer will be the Recruiting Authorities.

"On these grounds I trust that you and your Committee will be content, as I am, to accept the Report as it stands. I

will undertake on my side that the necessary changes in the system of the department shall be pressed on with all practicable speed, and that the Committee shall be kept in close touch with what is being done."

At the meeting of the Cabinet Committee on 28 April it was agreed that the Badge Committee should be constituted as proposed on 17 April, with Sir Mortimer Durand as Chairman, and the addition of Mr. E. G. S. Fawcett as a member. Mr. Long stated that the Committee would only recommend and advise.

VII. The Second Military Service Bill. Proposal to make the Tribunals the Sole Authority for Exemptions, May, 1916.

On 3 May, 1916, the second Military Service Bill was introduced, extending compulsion to those married men who had not attested. The opportunity was taken of attempting to limit the powers of Departments of State to exempt men from military service. An amendment was put down by Mr. Ellis Griffith, which, in effect, prescribed that a certificate of exemption granted by a Government Department should not hold good unless it was confirmed by a Local Tribunal. It was provided that the Department concerned might appear at the hearing and should have the same right of appeal as a party to the application.¹

On 15 May Mr. Griffith proposed² the clause on two grounds, equality of treatment and publicity. It was not fair that some men should have to prove their case in public before a Tribunal while others obtained certificates of exemption privately from a Government Department. He was supported by Captain Edge,³ who argued that the Tribunals should arbitrate between the Departments of State. Having heard the case for industry from the Department concerned, and the Military representative's reply on behalf of the Army, the Tribunal would come to a decision, strengthened in their opinion by their unrivalled knowledge of the local circumstances of the particular firm and the particular men. Several other members spoke in favour of the amendment, some attacking the system of badges, others the employment of young men in Government Offices. "We want them all to serve equally," Mr. Joynson Hicks said.⁴

After Dr. Macnamara had insisted⁵ on the time which the clause would compel Admiralty officials to spend in attending Tribunals, and Mr. Samuel had argued⁶ the case with reference to the miners and the Post Office, Mr. Long made a very serious speech.⁷ The heads of Departments ought to be trusted to see that a sufficient number of men was retained to give the country what it wanted, whether coal

¹ See Appendix VIII.

⁴ *Ibid.*, 1300.

² *Parliamentary Debates* (1916), *H. of C.*,
LXXXII. 1287.

⁵ *Ibid.*, 1289.

⁶ *Ibid.*, 1295.

³ *Ibid.*, 1294.

⁷ *Ibid.*, 1306.

or munitions or any other necessary. "We are the only people who can do the work. . . . Everybody will agree that munitions are just as important as men. We all remember the agony we endured when we knew more than a year ago that we had the men, but we had not enough munitions for them. Therefore, munitions are as important at least as men, and I think coal is as important." But only those who were responsible for the production of munitions could judge what men were wanted to produce them. The Tribunals could not decide, for they had not got the facts before them.

"I say with a full sense of the responsibility which my words carry, and I warn the House, that if they adopt this amendment they will do so in ignorance of the true facts; they will adopt a course so serious, and in the face of definite statements made by three members of the Government, that the Government will be compelled to take steps to alter the situation, because we cannot accept the responsibility for keeping our country supplied with all that she needs if the War is to be successfully carried out, and at the same time be subjected to the particular form of supervision suggested. It would be impossible for us to do the work which it is our duty to do. I have spoken strongly. I have no personal feeling in the matter. I have discussed it with the Minister of Munitions, with the First Lord of the Admiralty, with the War Office, and with the Board of Trade, and I say that the situation has not been exaggerated in any degree by the language I have used.

"It has been said that the fact that we have debadged men who were badged a short time ago proves that the work was badly done. Nothing of the kind. What it proves is that as a precaution it was absolutely essential to badge a great many men in the early days who can be released now. And why is that? It is because their places can be taken by other people; because we are replacing them by women and by older men. It does not prove that the work was badly done before; it only proves that as time goes on we learn by experience and are able to fill the places of these men."

After a defence of the young men retained in Government Offices Mr. Long concluded:—"I beg the House not to take a step the gravity of which cannot be exaggerated, and which would have, I believe, a very grave effect on the prosecution of the War, which is the first duty of every man in the country at this moment."

In view of this appeal, Mr. Griffith asked leave to withdraw his motion. Leave, however, was withheld. But after further discussion the question was put and negatived without a division.¹

Notwithstanding what had happened in the House of Commons, Lord Derby informed Mr. Lloyd George on 16 May that he proposed to put down an amendment to the Bill on the same lines as Mr. Ellis Griffith. The next day the Cabinet decided unanimously that they

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 1312.

could not accept Lord Derby's proposal in any form.¹ On 18 May Lord Derby said,² speaking of the difficulties in obtaining for military service men already under the Act :—

“ I will pass to another, and I think almost the greatest difficulty. That is the question of men in munition works who are eligible for military service, and who are, in the opinion of the various localities in which they are working, only shirking by being in those works. That has given rise to more trouble with regard to recruiting than anything else. You have grocers, pawnbrokers' assistants, all classes of men going into munition works and securing exemption ; and it is the fact of their so securing exemption, although not skilled, that gives rise to so much irritation. To be perfectly fair, I quite recognise the difficulty that Mr. Lloyd George, as Minister of Munitions, has had in getting sufficient labour. Indeed, I think he would say that he has not even now sufficient labour. Hence his reluctance to part with any of these men. Arrangements are being made by means of a Committee to debadge these men and secure them for military service. But I should be deceiving your Lordships if I did not tell you that these methods of debadging are excessively slow ; and if we are to wait for that system to work itself out, coupled with two months' exemption, we shall not get the men as rapidly as is desired. I should like, I candidly confess, to see the Resolution that was proposed in the House of Commons, even if in a modified form, put into this Bill. That Resolution, which received a very large amount of support in the House of Commons, was to the effect that every man, whether in a certified occupation or in munition works, should go before a Tribunal and have his case decided. That received support in the House of Commons, and I think it would be very popular outside. But there were difficulties in the way which prevented His Majesty's Government accepting it. I was more in hopes yesterday than I am to-day that some arrangement could be come to by which clear cases of shirkers could be dealt with by Local Tribunals without all the machinery that necessitates reference to the Ministry of Munitions, and I have put down an amendment for the Committee stage which, at all events, will give an opportunity for discussion on this question, and, I hope, for some arrangement being arrived at.”

The new clause which Lord Derby proposed to put down ran as follows :—

“ Where a certificate has been granted by or on behalf of a Government Department, and has been directed by that Department under sub-section (5) of Section 2 of the principal Act to be treated as a certificate of exemption for the purposes of the principal Act, and when an application has been made

¹ HIST. REC./R./322/142.

² *Parliamentary Debates* (1916), *H. of L.*, XXI. 1099.

to that Department by or on behalf of the Army Council for the withdrawal of the certificate of exemption, and the withdrawal has been refused by the Department concerned, it shall be competent to the Local Tribunal, upon an application made by any person generally or specially authorised for the purpose by the Army Council, to withdraw the certificate, and when the certificate is so withdrawn it shall cease to be in force as a certificate of exemption for the purposes of the principal Act."

Lord Derby, however, did not press this amendment. On 22 May he said¹ :—

"I put down an amendment and withdrew it for the simple reason that I found it went further than I intended, not perhaps further than I should have liked, but it had practically no chance of receiving acceptance from the Government or indeed from other portions of your Lordship's House or the House of Commons. I withdrew it because I did not want to interfere with other arrangements which were likely to be made in that connection. I am glad to say that the Minister of Munitions and the First Lord of the Admiralty, the two people most concerned, have to-day agreed that there shall be a small Committee of three, one representing the War Office, and that this Committee shall hear before it all flagrant cases of what I will call shirkers, and if the Committee decides that they are flagrant cases the men will then be brought before the Tribunals. That is a step which at all events will do away with a certain amount of the heartburning that exists with regard to these cases."

VIII. Provisions Relating to Industrial Compulsion.

In the course of the debates on the Second Military Service Bill, the question of industrial compulsion was again raised in connection with Clauses 6 and 11. Clause 6 proposed to amend Section 3 (3) of the principal Act² by reducing the interval between the withdrawal or expiry of a certificate of exemption and enlistment from two months to two weeks, unless in the meantime the man had applied for the renewal of his certificate. The reason given for this proposal was that the period of two months, although expressly designed to protect from industrial compulsion men who under the Munitions of War Act were debarred from fresh employment for six weeks if they were dismissed or left without a leaving certificate, at the same time covered men who were released for military service by a Government Department, and enabled them, if they so desired, to evade the Military Authorities. The Army Council urged most strongly that this means of evasion should be stopped. It was argued that the pledge against industrial compulsion would not be affected, for the victim would

¹ *Parliamentary Debates* (1916), *H. of L.*, XXII. 59.

² See p. 62.

still be adequately protected by applying for a renewal of his certificate of exemption within a fortnight, since the Tribunals were so congested that the hearing of the application would probably not come until the statutory six weeks had expired and the man had obtained fresh employment on work of national importance. Even if the application should be heard without delay and refused, the man could still keep his claim alive by taking it to the Appeal Tribunal.¹

These arguments did not, however, satisfy the Labour Party. On report Mr. Barnes and Mr. Wardle proposed² to retain such protection as the period of two months afforded for a man "who has been engaged in an occupation certified by a Government Department to be work of national importance or whose conditions of employment have been subject to the provisions of the Munitions of War Act." Mr. Long accepted this amendment, subject to the further limitation that it should apply only to a man who came within Section 7 of the Munitions of War Act.³ The House of Lords limited the provision further by confining it to men who were in the same employment or engaged in the same or similar occupations before 15 August, 1915, the date of registration.⁴ The House of Commons agreed with this amendment by a majority of 163 to 42.⁵

The granting of two months' grace after the lapse or withdrawal of a certificate of exemption, though limited in the manner described, caused much trouble to the Military Authorities in tracing those who were not anxious to join the Colours, and considerable delay in obtaining many men for the Army. Moreover, the danger anticipated was imaginary, accidents excepted. For the employer was not permitted by the Ministry of Munitions to withdraw a badged man's certificate; and the provisions of the Munitions of War (Amendment) Act rendered it practically certain that any men "victimised" by a misuse of the Military Service Acts would obtain a leaving certificate from the Munitions Tribunal, even if his employer was not legally bound to give him such a certificate. Thus, so far as munition work was concerned (and the only argument for so long a period as two months was the fact that a munition worker without a leaving certificate could not obtain fresh employment for six weeks), the period of grace was taken advantage of only when the Ministry of Munitions withdrew a certificate of exemption because a man was more urgently needed in the Army than for munitions work. The Government were, no doubt, placed in a difficult position when the representatives of Labour insisted on the retention of two months, since this provision had been expressly included in the first Military Service Bill in consequence of the Prime Minister's pledge against industrial compulsion. But the administrative difficulties involved in this provision were so serious, that in less than a year the knot was cut by abolishing all statutory exemptions, so far as munition workers were concerned,

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 839.

² *Ibid.*, 1475.

⁴ *Ibid.*, *H. of L.*, XXII. 52 ff.

³ *Ibid.*, 1477.

⁵ *Ibid.*, *H. of C.*, LXXXII. 2175.

and substituting for them administrative protection under the Schedule of Protected Occupations.

The other provision in the Bill, which related to industrial compulsion, was Clause 11, which ran as follows :—

“ The Army Council may make arrangements for the transfer to the reserve of any member of the regular forces or for the temporary demobilisation of any member of the territorial force . . . in cases where the transfer or demobilisation appears expedient in the general interests of the country and the Army Council are satisfied that it can be effected under conditions which will render the man transferred or demobilised immediately available for service in the case of military necessity.”

This clause was viewed with grave suspicion by some members of the House as involving “ industrial conscription.” Mr. Long, however, explained¹ that it offered the only real way by which soldiers could be used in industrial employment without any sort of industrial compulsion. Hitherto if men enlisted in the Army were required for industry there was no choice between discharging them from the Army altogether and lending them for employment.

“ To lend them is unsatisfactory. Although the War Office have behaved with great tact and consideration, and have really done all in their power to make those men free labourers, the fact is that those men . . . are soldiers, and are liable at any moment to come under military discipline, if that seemed necessary or desirable. We want to avoid that altogether. . . . If the Army find that a man is not wanted with the Colours for military purposes they will offer him the opportunity to go to his own occupation, his old home, or wherever he thought he could get the best employment open to him at the time. The moment he passed into the Reserve he would become a free and independent workman like anybody else. The only liability resting on him would be that in return for a small payment per day he would be liable to be recalled to the Colours in the event of some national emergency, say, an invasion of this country.”

Later, Mr. Long again emphasised the freedom of the men transferred to the Reserve.²

“ He takes off his uniform and puts on plain clothes. He goes away a perfectly free man ; he goes where he likes, he works where he likes, or he need not work at all. He can do just as he likes. He can leave his employer if he likes. He can choose his own employer. He is just as free, I was

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 877, 972. For the relation of this clause to the Release from the Colours Scheme, see Vol. IV., Part IV., Chap. III.

² *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 976.

going to say, as I am ; but he is a great deal more free than I am, as I am tied to the House of Commons."

The representatives of Labour naturally welcomed this declaration, and to clinch it, the proviso was added to the clause¹ :—

" Provided that during such period of transfer or demobilisation the man shall not be subject to military discipline."

IX. The Inspection and Withdrawal of Badges, March to September, 1916.

In the meantime the Badge Department was almost overwhelmed by the work which was thrown upon it. Hitherto the responsibility for the issue of badges to individual workmen had been entrusted to the employer, subject to general instructions from the Ministry. This responsibility was now assumed by the department. On 4 April, 1916, the Cabinet Committee decided that all badged firms should be required to keep a Register of all their male employees over 16 years of age, showing the name, address, badge number, age, occupation and degree of skill of each man, whether he was single or married, whether he had any other form of occupation, when he was engaged by the firm, and what his previous occupation was. The Register must be kept at the works, available for inspection by any duly authorised official. A new form of application for badges was consequently drawn up, in which firms were required to send in duplicate copies of the Register along with the particulars required of their contracts. On 6 May the transfer of badges without the written sanction of the Ministry was forbidden, and firms were required to make application for such transfers and also for additional badges on forms similar to the Register. On the information thus supplied the department issued certificates made out for the individuals exempted.

These arrangements increased the correspondence of the department, which was further augmented by the large number of appeals against badged men submitted through the War Office,² and by applications for badges arising out of the withdrawal on 1 May of the Munitions Occupations from the Certified List.³ In addition, reports were coming in rapidly from the inspectors engaged on the revision of badges, and action on their recommendations not infrequently brought protests from the firms and the supply departments. Above all was impending the shadow of the second Military Service Act and compulsion for married men. The burden thrown on the department is indicated by the fact that the average weekly correspondence received rose from 4,030 items in March to 8,845 in May, the number in the second week of May being 12,195.

Owing to the pressure of circumstances sufficient time was not allowed to provide for this situation. Large additional accommodation

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 879.

² See p. 54.

³ See p. 67.

was required, and new officers must be trained. With the rapid increase in the daily post, the executive officers fell seriously in arrear; by the middle of May they had nearly 4,000 files on their hands awaiting action. Matters were made worse by the number of files requisitioned by the Admiralty and the War Office in connection with revision; many files also had been sent down to the provinces for local enquiry and recommendation. A mass of unattached letters accumulated, including many applications for badges, which on 30 May amounted to 4,600. Papers requisitioned were often not produced. Important correspondence could not be traced. The department was on the verge of breaking down, although the staff worked till late at night and on Sundays. With the training of new officers and the completion of a new bungalow for the Registry, the position improved in June, but the arrears were not worked off until the middle of July.

The withdrawal of badges proved very difficult and troublesome. The inspectors, many of whom had been recently appointed, were faced by a task which demanded not only technical knowledge of manufacturing processes but judgment, and some grasp of the interdependence of industries and their ramifications. It was their duty to ascertain how far a firm's contracts or orders were for war purposes, and to what extent their employees were actually engaged on war work. The priority certificates,¹ introduced in March, 1916, were of considerable assistance in determining the first point; an intimate knowledge of Government designs afforded from time to time a useful check on the second. But wide deception would have been possible in both respects had not employers been animated by patriotic motives and their men reluctant to touch private work. When these points were settled, the inspector's duty was to determine on the one hand how far women or boys could be substituted for men in order to release men for the Army or for men's work, and on the other hand how the output of war material could be not only maintained but augmented. How difficult it was to strike the balance between these conflicting aims may be imagined, when it is remembered that the public holidays were postponed till the autumn of 1916 in order that there should be no diminution of output during the Battle of the Somme; that many firms were using more or less antiquated machinery, and after scrapping much material had only just reached the stage of economical production; that they had replaced the men who had volunteered in the first year of the War by unskilled men from other trades whom they had recently trained to perform exact operations and were naturally most reluctant to lose; that there was a strong prejudice in the minds of both employers and men against the employment

¹ In March, 1916, the Ministry of Munitions issued Circular L.33, instructing controlled establishments in pursuance of Regulation 8a of the Defence of the Realm Regulations to classify their work according to its national importance, to give priority to each order in accordance with the class to which it belonged, and in placing a sub-contract with another firm to certify the class of the work sub-contracted; if any doubt arose concerning the class of an order to be placed or executed, application should be made to the Priority Branch of the Ministry for directions.

of women, and that the substitution of women for men involved both expense and delay in providing the necessary accommodation. Some of the inspectors were enthusiasts for women's labour ; others appeared to be animated by the desire to send shirkers into the Army ; not all were experts in the trades with which it was their business to deal. Finally, political pressure required the work to be carried out at a rate which was not always compatible with thorough inspection or adequate reports.

Under these circumstances the reports naturally varied widely in value, although on the whole the work appears to have been well done. But to diminish erroneous decisions as far as possible it was arranged that the reports should be reviewed by the Adjudicators in the Dilution Section of the Labour Department before effect was given to the inspector's recommendations. In certain cases the Supply Departments also were consulted. This procedure involved delay, which was aggravated by the congestion in the Badge Department. But it was imperative to adopt so far as possible a uniform policy in withdrawing badges, and also not to imperil the output of munitions. Had some such procedure not been adopted very serious blunders would have been made. Even as it was, the Supply Departments found it necessary to intervene from time to time, and 1,746 withdrawals were cancelled before the end of August. Further, on 15 June Dr. Addison gave instructions that no badges should be withdrawn from men employed on 4·7 in. or any larger shell, and in the course of the next four weeks similar protection was extended to the rolling and casting of cartridge metal, locomotive and wagon building, surgical instrument making, pig iron production, the National Filling Factories, the automobile trade, and the manufacture of silica bricks. Finally, on 2 September the withdrawal of badges from munition workers was suspended, pending the settlement of certain questions with the War Office concerning the exemption and release of men required for munitions work.

Much trouble to employers and the Badge Department would have been saved if it had been arranged that employers should either countersign the inspector's recommendations for withdrawal or send a reasoned statement of their objections to the Ministry. As it was, misunderstandings frequently occurred. The inspector would report that the firm agreed, but on receiving notice of withdrawal the firm would enter a strong protest. Presumably, either the inspector had not made his intentions clear or the firm had promised to release the men, but on finding substitutes unobtainable withdrew. In the end it was found expedient to inform the firm in writing of what was proposed and invite their protest within three days.

The net withdrawals effected up to 29 August amounted to 32,798. By that time inspectors' reports had been received on 9,475 firms, covering 850,268 badges. In addition, 6,312 badges had been withdrawn by Woolwich Arsenal, Enfield Lock and Waltham Abbey, to whom the authority to review badge certificates had been given. It is uncertain

how many of the men affected were rendered available for military service. Not a few were found on examination to be medically unfit. On the recommendation of the War Office many badges were withdrawn from men above military age; and many of the men whose badges were withdrawn were still protected by being in reserved occupations, notably in the boot and leather trades. From the time of Lord Derby's recruiting campaign the War Office preferred so far as possible to rely on the exemption afforded by the Local Tribunals to men engaged on their work.¹ Whether in fact this policy resulted in setting more men free for military service than the alternative policy of badging is uncertain. But the chief difficulty in getting men whose badges were withdrawn into the Army arose out of the period of two months' grace allowed to the unattested man after the lapse or withdrawal of his certificate of exemption.

Towards the end of May a special committee of three members, representing the Admiralty, the War Office, and the Ministry of Munitions, was set up to deal with "flagrant cases of men deliberately evading military service" by obtaining employment on munitions work and badges.² On 20 November, 1916, the following results were reported:—

Appeals received	.. .. .	371
Individual cases decided by Committee	..	338
Men retained in civil employment	.. ..	108
Men released for military service	.. ..	121
Release conditional on substitutes being found		60
Cases referred to Local Tribunals (pending)	..	27
Miscellaneous	.. .. .	22

Although the purpose of this Committee was fully explained to recruiting officers, the total number of cases reported was 0.41 per cent. of the badges held by men of military age. In half these cases the charge of improper badging proved unfounded. Even where the men were released for military service, the reason was simply that they could then be spared. In the judgment of the Committee the majority of them were quite entitled to badges when they received them. The number of genuine scandals thus proved negligible.

X. The Work of the Badge Committee.

On 29 April, 1916, the new Badge Committee held its first meeting.³ The question of its function was raised immediately in an acute form.

¹ Since the bulk of Q.M.G. stores were obtained from industries also engaged in the supply of necessary goods for the civil population, it was desirable to have a uniform system of exempting the indispensable men. Moreover, if production suffered, the loss could be made good, so far as the Army was concerned, at the cost of commercial work.

² See p. 74, Army Council Instruction No. 1119/1916. HIST. REC./R./322/149

³ The members of the Committee were Sir Mortimer Durand (Chairman), Admiral Moggridge (Admiralty), Director of Recruiting (War Office), Capt. Fisher and Mr. Tallents (Ministry of Munitions), Mr. R. E. Graves (Home Office), and Mr. E. G. S. Fawcett.

The Director of Recruiting, representing the War Office, stated that :—

“ It was hoped that in reviewing the issue of badges to firms the Committee would consider the relative urgency of the work upon which the men concerned were to be employed. He drew the attention of the Committee to the fact that the Ministry of Munitions had admittedly placed contracts for the supply of certain munitions on a scale 25 per cent. in excess of the War Office demand, and that it was now withholding men from the Army to complete these munitions. He submitted that provision of labour to complete these munitions could not be regarded as urgent unless it was necessary to clear the shops to make way for work of a more urgent nature.”¹

The munitions referred to were the 6 in. howitzers, the order for which Mr. Lloyd George had placed on his own responsibility.²

This claim received some support from Mr. Long, who wrote to the Chairman, Sir M. Durand, on 5 May, stating what appeared to him to be the functions and powers of the Committee.³

“ I apprehend that the Committee is of an advisory rather than an executive character. For instance, the actual distribution of badges and the review of badges already issued must necessarily remain the duty of the Ministry of Munitions. While, however, it cannot undertake such detailed work, your Committee should endeavour to control generally the principles upon which both these processes are carried out, and should satisfy itself that while all reasonable precautions are taken to ensure ample supplies for the Army and Navy any unnecessary issue of badges is stopped. Particular attention should be directed to reduction of the number of badges held by men of military age.”

Mr. Long then went on to say that it was well within the competence of the Committee to obtain from any department, either by oral evidence or by reports, any information which the Committee considered necessary ; and he maintained as one of three vital points on which the Committee should be fully informed “ the relative urgency of different classes of supplies.”

Admiral Moggridge, the representative of the Admiralty, and Mr. Tallents maintained that as members of the Committee they had no power to enter into a discussion of the munitions programme or the relative importance of orders placed by the Admiralty or the Ministry of Munitions. The Chairman ruled that, although the Committee would not refuse to hear what the representative of the War Office had to say, they had no power to give a decision on a point on which two departments differed ; they could only report the matter to the Cabinet Committee.

¹ *Badge Committee Minutes*, 8/5/16. HIST. REC./R./322/143.

² See Vol. IX., Part II., Chap. I.

³ Copy in HIST. REC./R./322/143.

This incident illustrates the difficulty inherent in any attempt to control the work of a Department by means of a Committee beyond the Department's control. If the Director of Recruiting had been able to make his proposal effective and develop its logical consequences he would have delayed the production of a large number of heavy howitzers by withdrawing from them all the men eligible for military service. He would have done this through a Committee, no member of which had any expert knowledge on the subject, and only two members of which had any responsibility for the production of the munitions concerned.

The Committee's functions, as laid down by the Cabinet Committee,¹ were to consider returns of badges issued and firms inspected, and any questions of principle arising out of the issue or withdrawal of badges. Weekly returns were made by the Badge Department in a form approved by the Committee, but the consideration of them did not lead to any decision of importance. The only new principle which the Committee recommended and the Ministry accepted was that badges should be confined to men of military age.² The issue of badges and certificates of a new type was discussed, but no proposal was made. Some time was spent in working out a scheme by which employers should be prohibited from engaging men except through a Labour Exchange. The object of this scheme was to prevent the re-employment of men whose badges had been withdrawn and who were taking advantage of the period of grace to evade military service. But the scheme met insuperable opposition from the representatives of Labour. Considerable attention was given to schemes for substituting the older men for young men fit for general service; but the War Office withheld its assent. So they came to nothing. In the meantime the Ministry of Munitions introduced badges for women and limited the withdrawal of badges without consulting the Committee. It also adopted a scheme for giving certain men, recommended for unbadging, the option of transfer to urgent munitions work, although this scheme was opposed by the War Office, and therefore not approved by the Committee.³

On 2 August the Cabinet Committee again met. Lord Derby submitted that the question of distributing the man-power of the country had now arisen in an acute form. He was supported by the

¹ See p. 68.

² Effect was given to this decision on 17 May, 1916.

³ On account of the urgent demand for labour the Ministry decided on 20 July, 1916, that single men under 30 years of age, recommended for unbadging, should be set free for military service, but single men over 30 and married men should have the option of transfer to urgent work elsewhere, *e.g.*, shipbuilding, iron and steel production and the manufacture of large shell. The results of the scheme, however, were meagre, some 50 men only being transferred. It was very elaborate. Employers who did not object to releasing their men for the Army were annoyed when they found them invited to undertake work with other firms. And the majority of the men preferred to join the Colours rather than take up the work offered to them. On 24 October, 1916, the scheme, which had entailed much correspondence, was dropped.

Director of Recruiting, who urged that the Badge Committee were unable to arrive at reasoned decisions because they could not obtain clear guidance as to the relative urgency of the various programmes of the Admiralty, War Office and Ministry of Munitions. He suggested the appointment of a Man-Power Board, which should have the power to decide the disposal of the men available, and by means of inspection boards directly responsible to itself should regulate the number of men to be retained in civil life. Mr. Lloyd George, now Secretary of State for War, held that some such body was necessary, with power to adjudicate on the claims of each Department. It was finally agreed unanimously to report to the War Committee that it was considered desirable to establish a Committee of three persons who should have full and final power to settle all cases concerning the distribution of man-power in this country.¹

Accordingly, in September the Man-Power Distribution Board was appointed, with Mr. Austen Chamberlain as Chairman.² After consulting the War Office, the Admiralty and the Ministry of Munitions the Board reported on 3 October, directing in effect that no war service badge certificate issued after 6 October, 1916, should be valid as a certificate of exemption from military service unless it was issued in exchange to a man who rightfully held a badge certificate on that date. Thus the Ministry of Munitions and the Admiralty were made dependent on the Tribunals or the War Office for the protection of any further labour which they might require to carry out their programmes.

XI. Conclusion.

In the preceding pages it may be thought that too much emphasis has been laid on the differences between the Ministry of Munitions and the War Office over the exemption of munition workers from military service. But the problem is of interest from several points of view. First, the question at issue was of primary importance for the successful prosecution of the War. For neither the Ministry nor the Admiralty could have carried out their munitions programmes unless they had been able to retain a very large number of men of military age and fitness in civil employment. And it was necessary to retain not only craftsmen who could be proved to be individually indispensable (if indeed that claim can be made on behalf of any individual), but large bodies of men of various degrees of skill, the productive units in a delicate system of interdependent industries. Within these units substitution was to some extent possible, but even unskilled labourers fit for general service must have been exempted throughout the War had not large numbers in a lower medical grade been available. Secondly, the solution of the problem—local administration subject to the central control of policy—is applicable to many

¹ HIST. REC./R./322/143.

² The other members of the Board were Viscount Midleton, Mr. A. Balfour, J.P., Sheffield, Mr. G. N. Barnes, M.P., Mr. Stephen Walsh, M.P.

other problems of Government in time of peace as well as war. Thirdly, the difficulties which emerged in dealing with this comparatively simple question—departmental differences, class jealousies, charges of shirking, widespread suspicion and ill temper, the demand for uniform sacrifices and the task of constructing a code of rules elastic enough to cover the intricate and complex needs of the country, and yet so rigid as to allay the individual's fears of unequal treatment—these difficulties were but shadows of those which would have accompanied any attempt to carry out the more ambitious project of national service or industrial conscription.

The reasons which prevented the War Office from coming to a firm agreement with the Ministry in regard to exemptions may be summarised as follows:—(1) The complexity and magnitude of those forms of production which the term "munitions work" was stretched to cover were not generally understood even in Government Departments or Parliament, much less by the Press or the people. Consequently, the estimates made in the summer of 1915 of the labour requirements for munitions by those best qualified to judge fell far below the numbers actually needed. For example, when the Ministry of Munitions took up the subject of badges in June, 1915, they did not anticipate that the number of controlled establishments would exceed 200; but it ultimately exceeded 5,000. Similarly, on 1 September, 1915, the Inter-departmental Committee on the National Register estimated that 250,000 men of military age and fitness would be required for the work of the Admiralty and the Ministry of Munitions; but on 31 October, 1918, more than 1,000,000 men born between 1874 and 1900 were exempted for this work, notwithstanding all the efforts in the interval to get men for the Army. It was not unnatural, therefore, that as the issue of exemptions grew those who were not actually dealing with the problem should suspect laxity in administration. (2) This feeling was strengthened by the disappointing results of the Military Service Acts, which did not afford a large reserve of men for the War Office to draw on at its need. (3) The Recruiting Authorities were supported by public opinion, which, though satisfied that munitions must be provided on a great scale, was not reconciled to the exemption of the young men necessary for their production. Moreover, the setting of class against class and the methods by which the introduction and extension of compulsory service were advocated in certain quarters had aroused a suspicious temper which saw shirkers everywhere.

(4) But beside these reasons, which naturally made the War Office critical of the Ministry's action, there was a solid ground for their difference. The administration of exemptions from Whitehall was cumbrous and inexact. It was based, so far as individuals were concerned, mainly on forms and correspondence, not on enquiry into the facts on the spot. Nor was any proper index maintained of the individual exemptions that were granted. Yet, after the Military Service Acts had been passed, it was reasonable to require that the exempting authority should be able to produce the relevant particulars

concerning any man or class of men exempted. Such an index would have provided the statistical data for the consideration of any change in the policy of exemption and rendered its execution practicable. But the only way in which these weaknesses could be corrected was by decentralising the administration of exemptions. The War Office saw the importance of local enquiry, but tried to secure this by referring individual cases to the Local Tribunals, which were not as a rule qualified to decide the technical points at issue. The crucial problem, however, was obscured by the suggestion that the Admiralty and the Ministry of Munitions were subject to bias as judges in their own cause, and needed the control of some independent authority. In reply, these Departments naturally insisted that they could not carry out the programmes for which they were responsible if their labour was at the mercy of some other body ; if the man-power of the country should be reduced to the point at which it was necessary to decide between the Army and munitions, only the Cabinet or War Committee could decide. On matters of policy this position was invincible. But the main problem in 1916 was one not of policy, but of administration.

Unfortunately, the right solution was not found until the spring of 1917, after the problem had been further complicated by the Trade Card scheme. It was then realised that exemption from military service must be administered locally, and ought not to depend in any way either on employers or on trade unions. The badge system had been built up by giving the employer the responsibility for the issue of badges to individual men, and the department did not undertake this duty until the bulk of the badges had been issued. Under the Trade Card scheme certain trade unions were authorised to issue to their skilled members engaged on war work, or enrolled as War Munition Volunteers, cards which would protect them from recruitment. Both methods were clearly objectionable in view of the Military Service Acts. Apart from the risk and the suspicion of victimisation and favouritism, neither method could secure uniformity of treatment or the protection of those who were necessary and no others. But the Ministry of Munitions could not effectively protect a million men without a code and a large local organisation. Uniformity of treatment is a large part of justice in the relations between the State and the individual. Ignorance, no doubt, often renders differential treatment possible without protest. But in the State's dealing with labour the trade unions, with a membership dispersed throughout the country, are quick to discover inequalities and to press for their removal. It was imperative, therefore, to treat men in the same class uniformly, the essential factors in the class being employment, occupation, age and medical grade.

Employment on war work by a firm which had received badges afforded an adequate basis for the new scheme, although as circumstances changed some changes in the list of firms were necessary. From the outset the Ministry had worked on and developed a schedule of munitions occupations, and the experience of the dilution officers

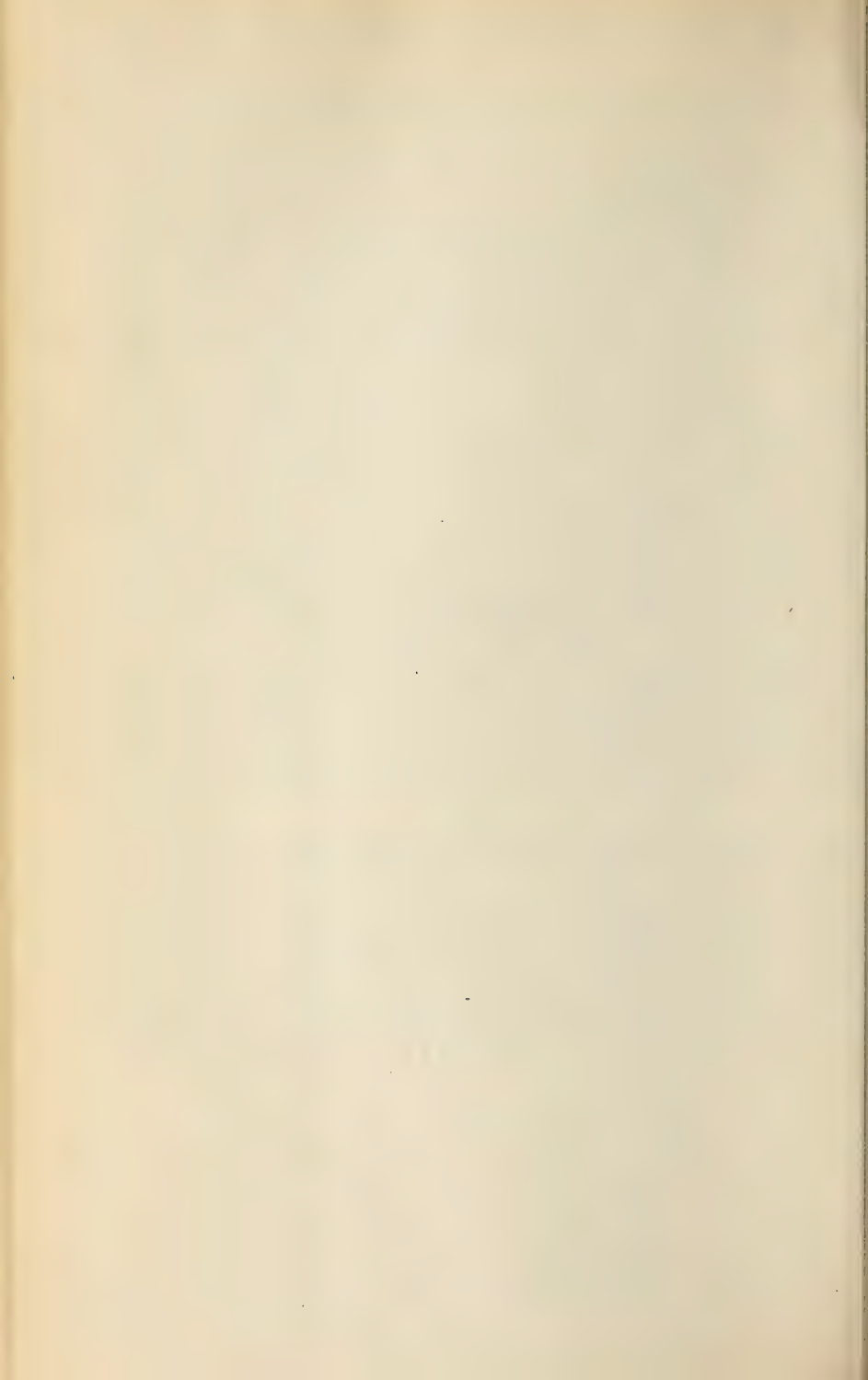
had been of great value in giving precision to this schedule. Nevertheless, even in 1917 the framing of a code which would cover just the number and classes of men which were indispensable was a matter of great difficulty, and was only arrived at after thorough consultation with the departments responsible for supply. Medical examination, the want of which had nullified much of the unbadging in 1916, was made possible by the direct relation between the new local offices of the Ministry and the recruiting offices, and by the substitution of administrative certificates for statutory certificates of exemption. The latter change not only took away the right of refusing to be medically examined, but abolished the period of grace which had seriously hampered the Recruiting Authorities.

The application of the code to the individual workmen depended primarily on their national registration cards. But so many points of difficulty arose that eight committees and 66 sub-committees, consisting of technical departmental officers and trade union representatives, were required to investigate them locally. These committees were entirely under the control of the Ministry, and their function was simply to decide whether in fact a man came within the schedule of protected occupations. The magnitude of their work is indicated by the fact that in 18 months they dealt with more than 200,000 cases, of which more than half were reviewed in 1918.

In addition to this provision for investigating complaints 66 local offices were set up to issue certificates, to maintain the necessary indexes and records, to arrange for inspections and medical examinations, and to withdraw such certificates as might be necessary from time to time in order to produce the quotas of men for the Army allotted to each area in accordance with the decisions of the War Cabinet.

This local organisation required a staff of 2,000 persons in addition to the considerable staff which was still needed at the headquarters to co-ordinate and control the local offices, and to deal with the numerous questions that were continually arising out of the rapid changes in the munitions programme and the constant pressure for men. But nothing less could secure for the Supply Departments the labour which was indispensable for their work and satisfy the critical attitude which the War Office and the country naturally adopted towards the exemption of a million men from military service.

APPENDICES.



APPENDIX I.

(CHAPTER I., p. 7.)

Classes of Labour Ineligible for Enlistment.

Gen. No. 6

LIST A.

9th April, 1915.

5166

SKILLED TRADES EMPLOYED IN THE PRODUCTION OF MUNITIONS OF WAR.**JOINER.**

Carpenter and joiner (ship work).

PLUMBER.

Ship's plumber.

Lead burner.

Chemical Plumber.

PLUMBER'S MATE.

Plumber's labourer (ship work).

DIVER.

Diver (ship).

PLATER, RIVETER, &c.

Plater (ship).

Puncher and shearer.

Riveter, hand (ship) ; specify left or right.

Riveter (pneumatic).

" (hydraulic).

" (constructional ironwork).

Plater (constructional ironwork).

Holder-up (ship).

" (constructional ironwork).

Angle ironsmith (ship).

" " (other).

Caulker (hand).

" (machine).

Driller (hand).

" (machine).

" (pneumatic).

Light plater (ship).

" " (other).

Hole cutter hands.

Edge plate planer.

SHIPWRIGHT (IRON AND WOOD) AND**OTHER SHIPWORKERS IN WOOD.**

Shipwright (iron and wood).

" (wood only).

" (iron only).

Barge builder.

Block maker.

Boat builder.

Loftsman and scriever.

Templet maker.

Mast maker (wood).

Oar maker.

Rigger.

Ship's carpenter (sea-going).

LABOURERS, SHIPYARD AND BOILER SHOPS.

Rivet heater.

Plater's helper (ordinary).

" " (block and board).

Boiler and pipe coverer.

Shipyards labourer.

Sailor gang or shipwright's labourer.

Stager.

Tank diver.

Cementor.

SMITHS.

Blacksmith.

Ship's smith.

Power hammer smith.

Tool smith.

Drop hammer smith.

Bayonet and sword forger.

ERECTOR, TURNER, AND FITTER.

Constructional ironwork erector.

Pipe fitter.

Steel worker (building).

Engineering fitter with marine shop experience.

Turbine blade fitter.

Ship's tackle fitter.

Machine erector.

Millwright.

Toolmaker (tool-room).

Machine tool-fitter.

Locomotive fitter.

Crane fitter.

Gas and oil engine fitter.

Steam engine fitter.

Crank turner.

Axle turner.

Electrical machine fitter.

Guns and mountings fitter.

Motor fitter.

Tool turner.

Tool setter.

Machine tool turner.

Motor turner.

Locomotive turner.

Marine turner.

Guns turner.

ERECTOR, &c.—continued.

Gun mountings turner.
 Fitter (aeroplane).
 Inspectors, viewers, gaugers.
 Markers off or setters out.

BRASS FINISHER, FITTER, &c.

Brass finisher.
 „ fitter.
 „ turner.

COPPERSMITH.

Coppersmith (brewer).
 „ (marine).
 „ (engineering).

METAL MACHINISTS.

Planer.
 Slotter.
 Shaper.
 Borer.
 Miller (universal).
 „ (other).
 Vertical driller (engineering).
 Radial driller (engineering).
 Grinder (universal).
 „ (other).
 Turret lathe operator.
 Capstan hand (ordinary).
 „ „ (including tool setting)
 Automatic machinist.
 Profiler.
 Press worker.
 Die stamper.
 Iron sawyer.
 Buffer.
 Polisher.

SHEET METAL WORKERS.

Sheet metal worker.
 Iron plate worker.
 Sheet-iron smith.
 Brazier.
 Tinsmith.
 Petrol tank maker.
 Motor car bonnet and radiator maker.
 Mud-guard maker.

GUNSMITH.

Gun forger (gun parts).
 „ action filer.
 „ „ assembler.

GUNSMITH—continued.

Gun barrel borer.
 „ „ brasier.
 „ „ filer.
 „ „ grinder.
 „ „ polisher.
 „ „ rib forger.
 „ „ ribber.
 „ „ rifler.
 „ „ welder (twist).
 „ „ bluer.
 „ breech maker.
 Case hardener (guns).
 Gun fitter.
 „ engraver.
 „ lock fitter.
 „ sight filer.
 „ „ fitter.
 „ stock carver.
 „ „ finisher.
 „ „ maker.
 „ „ chequerer.
 „ stocker.

WIREMEN, ELECTRICIANS, &c.

Wiremen (shipbuilding).
 Electrician (ship).

ERECTOR'S, FITTER'S, TURNER'S LABOURER, AND OTHER LABOURERS, &c., IN ENGINEERING &c., WORKS.

Fitter's and turner's labourer.
 Constructional ironwork erector's labourer (building).
 Coppersmith's labourer (building).
 „ „ (engineering).
 Tinsmith's labourer (building).
 „ „ (engineering).
 Riggers and heavy lifters.

And all workers in the following industries :—

Alkali manufacture.
 Explosives manufacture.
 Fireworks „
 Cartridge „
 Copper „
 Lead, zinc and spelter manufacture.
 Tar distilling.

APPENDIX II.

(CHAPTER I., p. 7.)

Classes of Labour Ineligible for Enlistment.

LIST D.

Gen. No. 6

WAR OFFICE, S.W.,
10th May, 1915.

5166

SKILLED TRADES AND OCCUPATIONS SPECIALLY CONCERNED WITH
WORK FOR THE ADMIRALTY IN SEAPORT TOWNS.

APPRENTICES.
 BOATMEN.
 BOATSWAINS.
 CARPENTERS :—
 General.
 Ships'.
 CAULKERS.
 CEMENTERS.
 CLEANERS.
 CRANEMEN.
 DRILLERS.
 ELECTRICIANS.
 FINISHERS.
 FIREMEN.
 FITTERS.
 FOREMEN OF TRADES.
 GRAINERS.
 HAMMERMEN.
 HOLDERS-UP.
 JOINERS.

LABOURERS :—
 Dock.
 Skilled.
 Semi-skilled (such as riggers and heavy lifters).
 LIGHTERMEN.
 MACHINISTS.
 PAINTERS.
 PATTERNMAKERS.
 PLATERS.
 PLUMBERS.
 POLISHERS.
 RIVETERS.
 SEAMEN.
 SHIPWRIGHTS.
 SMITHS.
 STEVEDORES.
 TURNERS.
 WRITERS.

APPENDIX III.

(CHAPTER I., p. 17.)

The Munitions (War Service Badges) Rules, 1915.

STATUTORY RULES AND ORDERS, 1915.—No. 1001.

MUNITIONS OF WAR.

War Service Badges.

In pursuance of Section 8 of the Munitions of War Act, 1915 (5 & 6 Geo. 5, c. 54), the Minister of Munitions hereby makes as Statutory Rules the following Rules as to War Service Badges in England and Ireland :—

Whereas it is provided by Section 8 of the Munitions of War Act, 1915, that :—

- (1) The Minister of Munitions may make rules authorising the wearing of badges or other distinctive marks by persons engaged on munitions work, or other work for war purposes, and as to the issue and return of any such badges or marks, and may by those rules prohibit the use, wearing or issue of any such badges, or any badges or marks indicating or suggesting that any person is engaged on munitions work or work for war purposes, except as authorised by those rules.
- (2) If any person acts in contravention, or fails to comply with any such rules, he shall be guilty of an offence against this Act.

And whereas it is provided by Section 14 of the same Act that any person guilty of such an offence shall be liable in respect of each offence to a fine not exceeding fifty pounds ; the following rules have been made by the Minister of Munitions :—

(1) The employer of any persons engaged on munitions work or other work for war purposes may make application to the Minister on a form giving the particulars set out in the schedule hereto or such other particulars as the Minister may require from time to time for authority to issue war service badges to such persons in accordance with these rules.

(2) The Minister may grant such application in respect of all or any of the persons included therein, and may supply war service badges to the employer and authorise their issue by the employer to such persons accordingly (on such condition as he thinks fit).

Provided that he shall not authorise the issue of war service

badges to persons engaged otherwise than in a Government establishment, unless, having regard to the occupations in which such persons are employed, he is of opinion that their removal from their present employment is likely to prejudice the production, transport, or supply of Munitions of War, or the successful prosecution of the war.

(3) A person to whom a war service badge has been issued by his employer in accordance with these rules shall be entitled to wear the badge only so long as the authority under which it was issued remains in force, and so long as he remains engaged on munitions work or other work for war purposes in the service of that employer, and when for any cause he is no longer entitled to wear the badge, he shall forthwith surrender it to his employer.

(4) An employer to whom war service badges have been supplied by the Minister shall be responsible :—

- (a) For issuing such badges in accordance with these rules and the authority given by the Minister ;
- (b) For requiring the surrender of any such badge as soon as the person to whom it was issued ceases to be entitled to wear it ;
- (c) For the custody of any such badges supplied to him but not issued or surrendered to him, and for their return to the Minister if so required.

(5) Any authority given by the Minister to any employer to issue war service badges to any person or persons employed by him may be revoked at any time by notice in writing given to the employer.

(6) No person shall make any false statement for the purpose of securing authority to issue, or for the purpose of obtaining any war service badge. No person shall issue any war service badge to any person except in accordance with these rules and with authority given to him by the Minister, and no person shall wear such badge unless it has been issued to him by his employer in accordance with these rules. And no such badge shall be sold or bought, pawned or accepted in pawn, or otherwise disposed of, or received by any person except in so far as duly authorised.

Provided that where a person in good faith wears a war service badge issued to him by his employer, believing himself to be entitled to do so, he shall not be deemed to have acted in contravention of these rules merely on the ground that the badge was wrongfully issued to him by his employer, or that he is no longer entitled to wear it.

(7) No person shall, except with the express authority of the Minister, make, sell, issue, or wear any badge similar in form or appearance to any badge supplied or authorised by the Minister, or any colourable imitation thereof, or any badge, or other distinctive mark calculated or intended to suggest that the wearer thereof is engaged on munitions work or other work for war purposes.

(8) Any person to whom before the date of these rules any badge was issued by or with the express authority of the Admiralty or Army

Council may, anything in these rules to the contrary notwithstanding, continue to wear such badge so long as he remains in his present employment, until such date, not being earlier than the thirtieth day of September, as the Minister may determine, either generally or in any particular case or class of cases.

(9) Any war service badge supplied by the authority of the Minister of Munitions in accordance with these rules shall remain the property of the Minister, and shall be returned to him at any time if so required by him.

(10) In these Rules :—

The expression “ Minister ” means “ Minister of Munitions.”

The expression “ war service badge ” means any badge or other distinctive mark authorised by the Minister for the purpose of indicating that the wearer thereof is engaged on munition work or other work for war purposes.

The expression “ Government establishment ” means any establishment owned by the Crown or of which the governing body is appointed by any Government department.

(11) These Rules may be cited as the Munitions (War Service Badges) Rules, 1915, and shall come into force on the date thereof.

Signed on behalf of the Minister of Munitions this ninth day of October, 1915.¹

H. LLEWELLYN SMITH,
Secretary.

Ministry of Munitions,
6, Whitehall Gardens, S.W.

Schedule.

Particulars to be furnished on application for authority to issue war service badges :—

1. Full name and address of person making application.
2. Number of badges applied for.
3. In the case of an application made on behalf of an establishment not being a Government establishment, occupation, and place of employment of each person employed in respect of whom application is made.

¹ These Statutory Rules are in identical terms with the Munitions (War Service Badges) Rules, 1915, which were made as Provisional Rules on 23 July, 1915, and were in force from that date until the coming into force of these Statutory Rules (*see s. 2 of the Rules Publication Act, 1893*).

APPENDIX IV.

(CHAPTER II., p. 30.)

The Starred Occupations.

PROVISIONAL LIST OF OCCUPATIONS FROM WHICH NO FURTHER RECRUITS
SHOULD BE DRAWN. (*August, 1915.*)

PART I.—Occupations required for Production or Transport of
Munitions supplied by Ministry of Munitions. (List A. 1.)

JOINER.	LABOURERS, SHIPYARD AND BOILER SHOP.
Carpenter and joiner (shipwork).	Plater's helper.
FURNACE BRICKLAYER FOR METAL TRADES.	Boiler and pipe coverer.
PLUMBER.	Shipyard labourer.
Ship's plumber.	Stager.
Lead burner (chemical plumber).	PATTERNMAKER.
PLUMBER'S MATE.	(All kinds.)
Plumber's labourer (ship work).	MOULDER.
DIVER.	(All kinds.)
Diver (ship).	COREMAKER.
PLATER, RIVETER, ETC.	(All kinds.)
Plater (ship).	FOUNDRY LABOURER.
" (boiler).	Fettler.
Boiler maker.	Dresser.
" scaler.	BRASSFOUNDER.
Puncher and shearer.	Dry sand moulder.
Riveter hand (ship).	Green sand moulder.
" (pneumatic).	SMITH.
" (hydraulic).	Blacksmith.
" (constructional ironwork).	Ship's smith.
Holder up " "	Power hammer smith.
" (ship).	Tool smith.
Rivet heater.	Drop hammer smith.
Angle ironsmith (ship).	Bayonet and sword forger.
" " (other).	Electric and acetylene welder and cutter.
Caulker (hand).	Smith's striker.
" (machine).	ERECTOR, TURNER, FITTER.
Driller (hand).	Constructional ironwork erector.
" (machine).	Steel worker (building).
" (pneumatic).	Machine erector.
Light plater (ship).	Millwright.
" " (other).	Beltman, engineering shops.
SHIPWRIGHT (IRON AND WOOD) AND OTHER SHIPWORKERS IN WOOD.	Inspector, viewer, gauger.
Shipwright (iron and wood).	Fitter (all kinds).
" (iron only).	Turner "
Boat builder.	Toolmaker (tool room).
Loftsman and scribever.	Die sinker.
Templet maker.	BRASS FINISHER, FITTER.
Rigger.	Brass finisher.
Ship's carpenter (sea-going).	" fitter.
Caulker (wood).	" turner.
Blockmaker (wood).	COPPERSMITH.
	(All kinds.)

METAL MACHINIST.

Planer.
 Slotter.
 Shaper.
 Gisholt lathe operator.
 Borer.
 Miller (universal).
 " (other).
 Driller (vertical).
 " (engineering).
 " radial (engineering).
 Grinder (universal).
 " (other).
 Turret lathe operator.
 Capstan hand (ordinary).
 " " (including tool setting).
 Automatic machinist.
 Press worker.
 Die stamper.
 Iron sawyer.
 Buffer.
 Polisher.
 Sand blaster.

SHEET METAL WORKER.

Sheet metal worker.
 Iron plate worker.
 Sheet ironsmith.
 Brazier.
 Tinsmith.
 Petrol tank maker.
 Motor car bonnet and radiator maker.

SMALL ARMS MANUFACTURE.

Barrel borer.
 " setter.
 " rifle.
 " straightener.
 Filers (for small arms).
 Browner (small arms).
 Hardener and temperer.
 Stock machinist.
 " finisher.
 Grinder (sword and bayonet).

WIREMAN, ELECTRICIAN, etc.

Wireman (building).
 " (shipbuilding).
 Electrician (ship).
 Armature winder.

ENGINEMAN.

Stationary engine driver.
 Craneman.

LABOURERS (ERECTORS' — FITTERS' — TURNERS') AND OTHER LABOURERS ENGAGED IN ENGINEERING WORK.

Fitter's and turner's labourer.
 Constructional ironwork labourer.
 Erector's labourer (building).
 Coppersmith's labourer.
 Tinsmith's "
 Rigger and heavy lifter.

COACH, CARRIAGE AND MOTOR CAR

Body maker.
 Wagon builder.

COACH, ETC., MAKER—*continued.*

Body maker.
 Carriage maker.
 Wheelwright.

WORKERS IN PIG IRON MANUFACTURE (BLAST FURNACES).

(All classes of workers.)

WORKERS IN PUDDLING FURNACES, IRON AND STEEL ROLLING MILLS.

(All classes of workers.)

WORKERS IN IRON AND STEEL TUBE MANUFACTURE.

(All classes of workers.)

FLEXIBLE METALLIC TUBING.

(All classes of workers.)

COPPER MANUFACTURE.

(All classes of workers.)

LEAD MANUFACTURE.

(All classes of workers.)

ZINC MANUFACTURE.

(All classes of workers.)

BRASS AND BRONZE MANUFACTURE.

Other than foundry, and including
 Turbine blade drawer.

GALVANISED SHEET MANUFACTURE.

(All classes of workers.)

• LAMINATED SPRING MAKER.

ALUMINIUM AND ALLOYS MANUFACTURE.

(All classes of workers.)

ELECTRICAL INSTRUMENT MAKER.

WIRE, WIRE NET AND WIRE ROPE MANUFACTURE.

(All classes of workers.)

ASBESTOS MANUFACTURE.

(All classes of workers.)

BOATMEN ON ADMIRALTY WORK.

BOATSWAINS

SEAMEN

LIGHTERMEN

STEVEDORES

DOCKSIDE LABOURERS

SCIENTIFIC INSTRUMENT MAKER.

CHEMICAL, ENGINEERING, AND OPTICAL GLASS MAKER.

FURNACE FIREBRICK MAKER FOR METAL TRADES.

EXPLOSIVE MANUFACTURE.

(All classes of workers.)

FIREWORK MANUFACTURE.

(All classes of workers.)

CARTRIDGE MANUFACTURE.

(All classes of workers.)

TAR DISTILLING MANUFACTURE.

(All classes of workers.)

ALKALI MANUFACTURE.

(All classes of workers.)

STEEL MANUFACTURE AND SMELTING.

(All classes of workers.)

SAIL MAKER.

HOSE MAKERS (LEATHER AND CANVAS).

MECHANICAL DRAUGHTSMAN.

PART II.—Agricultural Occupations. (List A. 2.)

SHEPHERD.
STOCKMAN (including milkers).
CARTER, HORSEMAN, WAGONER.
FARM BAILIFF (working).
THATCHER.

WORKMEN CONCERNED WITH AGRICULTURAL MACHINERY, STEAM PLOUGHS, AND THRESHING MACHINES, VIZ. :—
Engine driver.
Machine attendant.
Mechanic.

PART III.—Occupations in Mining, etc. (List A. 3.)

IRON ORE MINER (Hæmatite).
COAL AND SHALE MINER, WORKERS AT THE FACE.
(All classes.)
COAL AND SHALE MINER, OTHER WORKERS BELOW GROUND.
(All classes.)
COAL AND SHALE MINER, WORKERS ABOVE GROUND.
Winding engineman.
Pumpman.
Weighman.
Electrician.

SHALE OIL WORKER.
(COLLIERY FITTER AND MECHANIC is included under FITTER AND TURNER.)
COKE BURNER.
Workmen engaged in coke oven by-product recovery plant.

PART IV.—Railway Servants employed in the manipulation of traffic and in the maintenance of the lines and rolling stock. (List A. 4.)

CAPSTAN-MAN.
CARMAN AND VANGUARD.
CARRIAGE AND WAGON EXAMINER.
CHECKER.
COUPLER AND SLIPPER.
CRANEMAN.
ENGINE CLEANER.
ENGINE DRIVER AND MOTORMAN.
FIREMAN.
GREASER.
GUARD (goods and mineral) AND BRAKESMAN.
GUARD (passenger).
HORSE DRIVER (shunting).

INSPECTOR.
LAMPMAN.
LOADER AND SHEETER.
NUMBER TAKER.
PERMANENT-WAY MAN; (SCOTLAND—SURFACEMAN. IRELAND—MILES-MAN).
POINTS-MAN.
PORTER (goods).
SHUNTER.
SIGNAL FITTER AND TELEGRAPH WIRE-MAN.
SIGNALMAN.
YARDSMAN.

APPENDIX V.

(CHAPTER II., p. 52.)

Statistics Concerning Badged and Starred Men Wrongfully Enlisted for Immediate Service.

- A. Cases submitted to War Office.
 B. Men reported by the War Office " Discharged."
 C. Men reported by War Office " Refused to be discharged."
 D. Men enrolled in Technical Corps : discharge not sanctioned.
 E. Cases submitted to Admiralty.
 F. Men reported by Admiralty " Discharged."

	A	B	C	D	E	F
Nov. 1915	281	159	25	—	—	—
Dec. "	151	123	1	—	43	22
Jan. 1916	101	82	10	—	15	21
Feb. "	93	80	2	—	8	4
Mar. "	56	59	3	—	2	2
April "	47	35	2	—	2	2
May "	44	41	1	—	1	2
June "	45	20	3	—	—	—
July "	40	36	13	—	3	—
Aug. "	56	25	4	7	1	2
Sept. "	63	7	1	28	—	—
Oct. "	36	1	1	32	—	—
Nov. "	73	9	0	5	4	2
TOTAL	1,096	687	65	72	79	57

APPENDIX VI.

(CHAPTER III., p. 62.)

**Direction Given by the Minister of Munitions under Section 2 (5)
of the Military Service Act, 1916.**

The Minister of Munitions directs as follows :—

- (1) Any certificate granted by or on behalf of the Ministry of Munitions before the appointed date, whereby any person is authorised to wear a War Service Badge, shall if rightfully held on 1 March, 1916, by the person to whom it was granted be treated as a certificate of exemption for the purposes of the Act.
- (2) Any certificate granted by or on behalf of the Army Council before the appointed date, whereby any person is authorised to wear a War Service Badge, or so granted in token that his services are urgently required in the manufacture of Ordnance War Material, shall if rightfully held on 1 March, 1916, by the person to whom it was issued be treated as a certificate of exemption for the purposes of the Act.
- (3) This direction may be revoked or withdrawn by the Minister of Munitions at any time.

By order of the Minister of Munitions,

(Signed) H. LLEWELLYN SMITH,
General Secretary,
February, 1916.

APPENDIX VII.

(CHAPTER III., p. 62.)

**List of Occupations Certified by the Ministry of
Munitions, in Consultation with the Admiralty, under Section 2 (2)
of the Military Service Act, 1916.**

Acetylene welder.	Caulker (hand).
Alkali manufacture (all classes of workmen).	" (machine).
Alloys (metal) manufacture (all classes of workmen).	" (wood).
Aluminium manufacture (all classes of workmen).	Chemical plumber or lead burner.
Angle ironsmith (ship).	Coach body maker.
" " (others).	Constructional ironwork erector.
Armature winder.	Constructional ironwork labourer.
Asbestos manufacture (all classes of workmen).	Copper manufacture (all classes of workmen).
Automatic machinist (metal).	Coppersmith (all classes).
Barrel borer (rifles).	Coppersmith's labourer.
" rifler "	Coremaker (all classes).
" setter "	Crane driver (engineman).
" straightener (rifles).	Die sinker.
Bayonet and sword forger.	Die stamper (metal).
" " grinder.	Diver (ship).
Beltman (engineering shop).	Dockside labourer (Admiralty work).
Blacksmith.	Draughtsman (mechanical).
Blast furnaces (pig iron manufacture)—all classes of workmen.	Dresser (iron and steel).
Boat builder.	Driller (hand).
Boatman (on Admiralty work).	" (machine).
Boatswain "	" (pneumatic).
Body maker (coach, carriage, and motor car).	" (radial) engineering.
Boiler and pipe coverer.	" (vertical) "
Boiler scaler.	Drop hammer smith.
Boilermaker.	Electric wireman (ship or building).
Boiler plater.	Electrician (ship).
Borer (metal).	Electric welder and cutter.
Brass and bronze manufacture (all classes of workmen).	Engineman (stationary engine).
Brass moulder (dry sand).	Erector (constructional ironwork).
" " (green sand).	" (machine).
" fitter.	" (steel worker)—building.
" finisher.	Erector's labourer (building).
" turner.	Explosives manufacture (all classes of workmen).
Brazier (sheet metal worker).	Fettler (iron and steel).
Bricklayer (metal trades furnace only).	Filer (small arms).
Browner (small arms).	Firebrick maker (metal trades furnace).
Buffer (metal).	Fireworks manufacture (all classes of workmen).
Capstan hand (ordinary).	Fitter (all classes).
" (including tool setting).	Fitter's labourer.
Carpenter (ship).	Flexible metallic tube manufacture (all classes of workmen).
" (sea-going).	Forger (bayonet and sword).
Carriage maker.	Galvanized sheet manufacture (all classes of workmen).
Cartridge manufacture (all classes of workmen).	Galvanizer and helper (ship and engine work).
	Gauger (engineering).
	Gisholt lathe operator.

Glass maker (chemical, engineering and optical).	Riveter (hydraulic).
Grinder (sword and bayonet).	„ (pneumatic).
„ (universal).	Rivet heater.
„ (other).	Rolling mills (iron and steel)—all classes of workmen.
Hand driller (ship).	Sand blaster.
Hardener and temperer (small arms).	Seaman (on Admiralty work).
Holder up (constructional ironwork).	Shaper (metal).
„ (ship).	Sheet iron smith.
Hose makers (leather and canvas).	Sheet metal worker.
Hydraulic riveter.	Sheet metal worker (motor car bonnet and radiator maker).
Iron erector (constructional work).	Sheet metal worker (petrol tank maker).
Iron plate worker.	Ship carpenter.
Iron sawyer.	Ship's carpenter (sea-going).
Iron manufacture (blast furnaces)—all classes of workmen.	Shipsmith.
Iron and steel rolling mills (all classes of workmen).	Ship plater.
Iron and steel tube manufacture (all workmen).	Ship plumber.
Inspector (engineering).	Shipwright (iron only).
Instrument maker (electrical).	„ (iron and wood).
„ „ (scientific).	Slotter (metal).
Laminated spring maker.	Small arms manufacture (barrel borer).
Lead burner (chemical plumber).	„ „ „ (barrel rifler).
Lead manufacture (all classes of workmen).	„ „ „ (barrel setter).
Lighterman (on Admiralty work).	„ „ „ (barrel straightener).
Light plater (ship).	„ „ „ (browner).
„ „ (other).	„ „ „ (filer).
Loftsmen and scribe (ship work).	„ „ „ (hardener and temperer).
Machine erector.	„ „ „ (stock finisher).
„ driller.	„ „ „ (stock machinist).
Miller (universal) metals.	
„ (other) „	Smith's striker.
Millwright.	Spring maker (laminated).
Motor car bonnet maker (sheet metal worker).	Steel manufacture and smelting (all classes of workmen).
Moulder—iron and steel (all classes).	Steel worker (building).
Optical glass maker.	Stevedores (on Admiralty work).
Patternmaker (all classes.)	Stock machinist (small arms).
Petrol tank maker (sheet metal worker).	Stock finisher (small arms).
Plater (boiler).	Striker (smiths).
„ light (ship, etc.)	Sword and bayonet grinder.
„ (ship).	Tar distilling manufacture (all classes of workmen).
Planer (metal).	Templet maker (metal).
Plater's helper.	„ „ (wood).
Plumber (ship).	Tinsmith.
Plumber's labourer (ship work).	Tinsmith's labourer.
Pneumatic driller.	Toolmaker (tool-room).
„ riveter.	Toolsetter.
Polisher (metal).	Tool smith.
Power hammer smith.	Tube manufacture (all classes of workmen).
Press worker (metal).	Turbine blade drawer.
Puddling furnaces (all classes of workmen).	Turner (all classes).
Puncher and shearer.	Turner's labourer.
Radiator maker—motor car (sheet metal worker).	Turret lathe operator.
Rigger and heavy lifter.	Universal grinder.
Rigger (ship).	„ miller.
Riveter (constructional ironwork).	Viewer (engineering).
„ hand (ship).	Wagon builder.

Wheelwright.

Wire Manufacture (all classes of workmen).

Wire net manufacture (all classes of workmen).

Wire rope manufacture (all classes of workmen).

Wireman (electrical) building.

„ „ shipbuilding.

Zinc manufacture (all classes of workmen).

APPENDIX VIII.

(CHAPTER III., p. 71.)

Mr. Ellis Griffith's Amendment.

(1) A certificate granted by or on behalf of a Government Department under sub-section (5) of section 2 of the principal Act shall cease to be a certificate of exemption for the purposes of the principal Act or of this Act, notwithstanding that it has been directed by that Department to be so treated, unless within 30 days after the passing of this Act, as respects a certificate granted before the second day of March, nineteen hundred and sixteen, or within 30 days after the date on which the certificate is granted as respects a certificate granted after the passing of this Act, the holder of the certificate of exemption makes an application to the local tribunal for the confirmation of the certificate.

(2) Upon such application the local tribunal may either confirm or disallow the certificate, and where the certificate is disallowed it shall cease to be in force as a certificate of exemption for the purposes of the principal Act or of this Act.

(3) The Government Department by or on behalf of which the certificate was granted may appear and shall have the same right of appeal in any application to a tribunal under this section as if that department was a party to the application.

APPENDIX IX

Return of Badged Men as on 27 July, 1916.

Industries.	No. of Estab- lish- ments.	Badged men of military age.		Others badged.	Total badged.
		Married	Single.		
Building and Works of Con- struction	413	10,670	4,322	3,067	18,059
Quarries, etc.	253	2,685	1,651	2,449	6,785
Metals and Metal Products ..	3,061	111,070	77,410	83,162	271,642
Machinery Plant and Tools ..	3,556	75,544	61,482	56,275	193,301
Chemicals and Allied Products	1,655	42,367	19,773	34,168	96,308
Arms and Ammunition	2,679	98,162	66,607	57,501	222,270
Shipbuilding	1,168	71,307	56,718	55,401	183,426
Vehicles	552	22,843	14,287	14,532	51,662
Aircraft	325	17,023	11,867	7,750	36,640
Textiles	126	982	571	680	2,233
Leather	519	6,407	3,466	3,895	13,768
Rubber	57	2,750	1,336	975	5,061
Timber and Woodwork. . .	974	8,277	5,296	3,818	17,391
Paper	152	2,130	881	725	3,736
Medical Supplies	312	3,377	2,419	1,794	7,590
Glass	115	1,473	926	1,189	3,588
Food	27	441	215	239	895
Manufactures, Miscellaneous ..	462	5,148	3,217	3,449	11,814
Professional Occupations ..	236	1,741	757	393	2,891
Transport	537	4,962	2,528	3,581	11,071
Public Utilities	324	5,809	3,142	4,204	13,155
Official	171	3,735	2,399	7,207	13,341
TOTAL	17,692	498,903	341,270	346,454	1,186,627

In addition to the above total 161,000 Admiralty badges were understood to be outstanding on 27 July, 1916 :—

With contract firms	46,000
In Dockyards	76,000
In Mercantile Marine	39,000

Census of Badged Men, 10 October, 1916 (Industrial Groups).

Industries.	Badged Men of Military Age.						Others badged.	Total badged.
	Skilled	Semi- skilled	Un- skilled	Age 18-25	Age 26-30	Age 31-40	Total	
Building and Works of Construction ..	10,498	2,319	2,019	2,424	3,283	9,129	14,836	18,442
Quarries, etc. ..	3,464	703	265	996	943	2,493	4,432	6,944
Metals and Metal Products ..	125,749	48,600	17,363	59,607	42,963	89,142	191,712	275,125
Machinery, Plant and Tools ..	100,611	27,786	6,418	46,302	30,580	57,933	134,815	185,894
Chemicals and Allied Products ..	34,719	17,729	7,726	13,108	13,377	33,689	60,174	93,244
Arms and Ammunition ..	101,306	54,882	20,078	49,628	40,874	85,764	176,266	223,451
Shipbuilding ..	122,067	39,255	12,606	62,232	40,561	71,135	173,928	235,768
Vehicles ..	27,604	9,580	1,646	11,580	9,603	17,647	38,830	54,212
Aircraft ..	25,578	6,534	1,542	9,728	8,506	15,420	33,654	42,978
Leather ..	4,384	840	29	898	1,334	3,021	5,253	7,897
Timber and Woodwork ..	13,337	1,552	398	3,306	3,473	8,508	15,287	18,934
Medical Supply ..	4,364	436	51	1,252	1,191	2,408	4,851	6,556
Manufactures, Miscellaneous ..	17,210	3,215	466	4,839	4,915	11,137	20,891	28,254
Professional Occupations ..	1,990	420	73	546	587	1,350	2,483	2,957
Transport ..	3,944	1,148	820	1,148	1,315	3,449	5,912	8,271
Public Utilities ..	7,599	1,805	353	2,214	2,158	5,385	9,757	14,354
Officials ..	3,372	4,904	3,849	3,118	2,857	6,150	12,125	18,762
TOTAL ..	607,796	221,708	75,702	272,926	208,520	423,760	905,206	1,242,043

APPENDIX XI.

Census of Badged Men, 10 October, 1916 (Industries).

Industries.	Badged Men of Military Age.	Industries.	Badged Men of Military Age.
Factory Construction and		Motor Lorries, Parts and	
Housing	11,789	Repairs	11,723
Railways, Docks, Roads ..	2,630	Transport Wagons	15,077
Bricks (Building)	475	Wheelwrights and Black-	
Limestone	2,451	smiths	2,871
Quarry Products	1,279	Railway Wagons	3,595
Iron and Steel Works ..	95,530	Aeroplanes, Engines and	
Forges	4,759	Parts	32,576
Foundries	20,281	Boots	632
Brass	8,406	Leather Belting	410
Copper	3,702	Leather Equipment	411
Miscellaneous Metals ..	6,823	Tanners	3,535
Scrap Metal Merchants ..	1,989	Timber	10,039
Tubes	11,441	Ammunition Boxes	2,194
Wire	8,011	Miscellaneous Woodwork ..	2,589
Sheet Iron, Tinware, etc. ..	5,662	Hospital Equipment	205
Springs, Bolts, Nuts ..	4,618	Dental	222
Miscellaneous Metal Workers	3,258	Drugs	2,320
Chainmakers	2,884	Medical and Surgical	
Boiler Makers	2,800	Appliances	1,964
Asbestos, etc.	1,525	Brushes	714
Mines	3,359	Canvas	1,222
Factory Equipment	12,916	Carbon and Charcoal	188
Fire and Refractory Bricks..	4,588	Cutlery	2,330
Plant	15,064	Earthenware	392
Machinery	13,352	Food	960
Engines	10,800	Glass	2,404
Machine Tools	27,901	Lamps	1,813
Small Tools	5,986	Printing, Paper, etc.. ..	2,907
Implements	1,929	Ropes	323
Electrical Apparatus and		Rubber	4,389
Installations	31,545	Textiles	2,232
Scientific Instruments ..	6,540	Miscellaneous	571
General Chemical Works ..	3,572	Architects	58
High Explosives	14,426	Consulting Engineers	241
Gasworks	10,682	Financial, Legal Advisers, etc.	512
Coal Tar Products from other		Laboratory, Researchers,	
Sources	6,867	Instructors.	1,519
Glycerine	5,382	Carriers, Land	2,396
Lubricants, Oils, Paints ..	4,780	Carriers, Water	1,676
Explosives	10,295	Coal Merchants	1,689
Ordnance, etc.	43,213	Electric Power Supply	7,799
Shells, Grenades and Filling	90,882	Cable Companies	1,282
Small Arms	13,646	Water Works.	64
Torpedoes, Mines, etc. ..	2,525	Government Departments,	
Shipbuilding and Repairing	122,263	etc	11,250
Shipbuilding, Subsidiary and		Returns outstanding (esti-	
Fittings	28,942	mated)	70,377
Marine Miscellaneous	1,923		
Motor and other Cycles ..	1,844	TOTAL	905,206

APPENDIX XII.

**Enlistments for the Regular Army and the Territorial Force,
August, 1914, to December, 1916.**

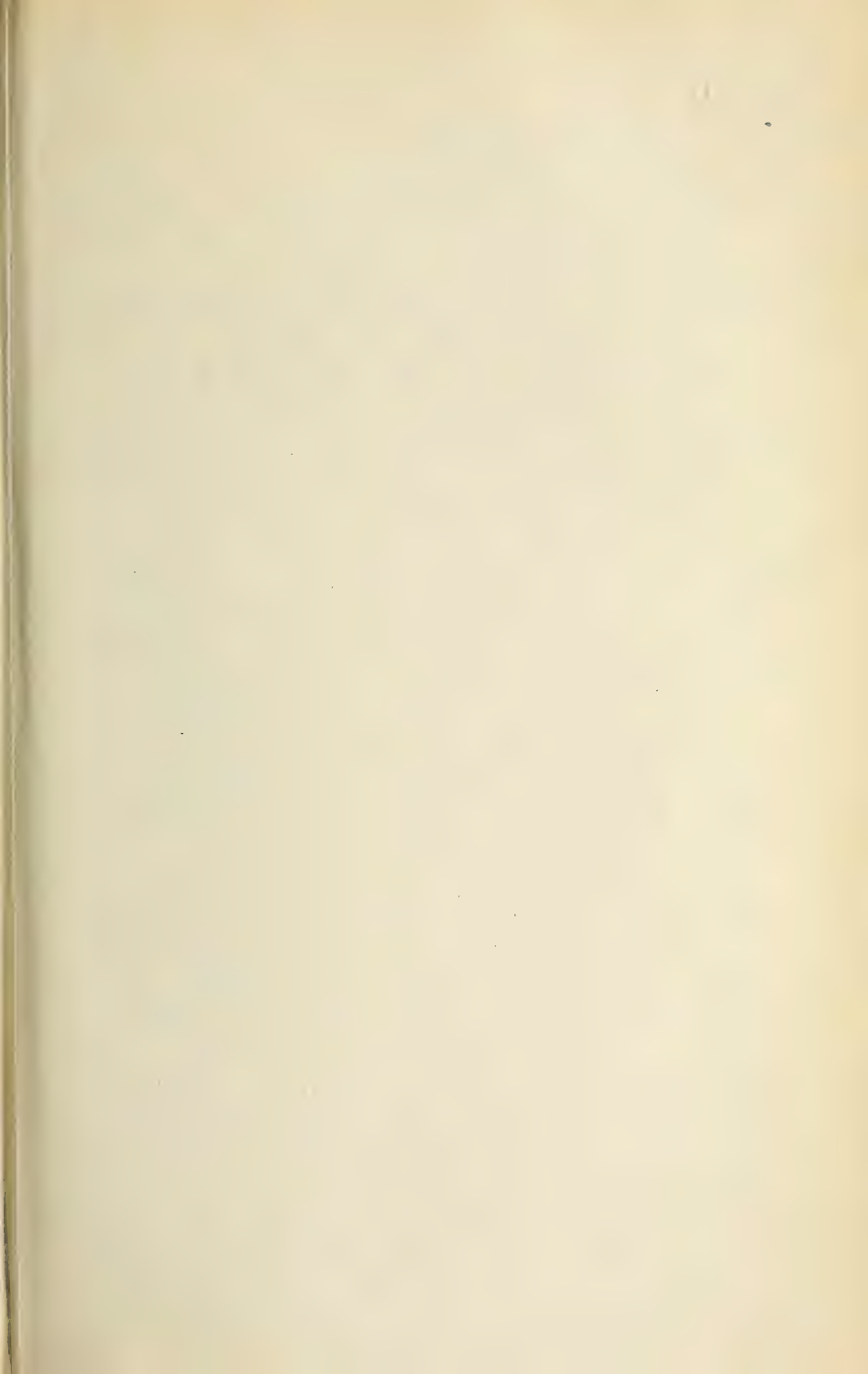
1914.					
August ..	..	..	..	..	298,923
September ..	..	..	..	..	462,901
October ..	..	..	..	..	136,811
November ..	..	..	..	..	169,862
December ..	..	..	..	..	117,860
					<hr/>
					1,186,357
1915.					
January ..	..	..	..	..	156,290
February ..	..	..	..	..	87,896
March ..	..	..	..	..	113,907
April ..	..	..	..	..	119,087
May ..	..	..	..	..	135,263
June ..	..	..	..	..	114,679
July ..	..	..	..	..	95,413
August ..	..	..	..	..	95,980
September ..	..	..	..	..	71,617
October ..	..	..	..	..	113,285
November ..	..	..	..	..	121,793
December ..	..	..	..	..	55,152
					<hr/>
					1,280,362
1916.					
January ..	..	..	..	..	65,965
February ..	..	..	..	..	98,629
March ..	..	..	..	..	129,493
April ..	..	..	..	..	106,908
May ..	..	..	..	..	125,768
June ..	..	..	..	..	156,386
July ..	..	..	..	..	88,213
August ..	..	..	..	..	111,771
September ..	..	..	..	..	81,195
October ..	..	..	..	..	97,684
November ..	..	..	..	..	76,058
December ..	..	..	..	..	52,005
					<hr/>
					1,190,075

INDEX.

- ADAMS, Mr. W. G. S. 18
- ADMIRALTY—
- Limitation of recruiting policy . 6 ff.
- Instructions to exempt firms . . 7
- Instructions as to badges . . . 8
- Letter to M.M. as to badges (20/7/15), 15.
- Arrangements with M.M. as to issue of badges 22
- Exchange of badges issued by . 63 ff.
- Statistics of badges issued by 65, 104
- ANDERSON, Mr. W. C. 60
- ASQUITH, Mr. H. H. 28, 41, 56
- Speech on conscription (2/11/15) 42 ff.
- Speech on industrial compulsion (11/1/16) 60, 61
- BADGES—
- Issued by Admiralty. 8, 9, 63 ff.
- Issued by War Office 9 ff.
- Private 11, 13, 20
- Provisions in M.W. Act as to . . 13
- M.M. scheme for issue of . . . 14 ff.
- Arrangements with Adm. and W.O., 15 ff., 22
- Rules 18, 19, 92 ff.
- Persons eligible for 18, 19, 22 ff.
- Procedure for issue of 19, 20 ff.
- Value of 24, 25, 44
- Inspection, 22, 65 ff., 78 ff.
- Lord Derby on 42, 64, 73, 74
- Statistics of 65, 79, 104, 105, 106
- BADGE COMMITTEE . 15, 16, 17, 20, 21, 68 ff., 80 ff.
- BALFOUR, Mr. A. J. 41
- Memorandum by (22/8/15) . . . 37, 38
- BARNES, Mr. G. N. 75, 83 n.
- BARNES, Sir G. S. 30 n., 31 n.
- BOARD OF TRADE—
- Reports on state of employment, 6, 12.
- BRADY, Sir R. H. 30 n., 31 n., 50
- BRIAND, M. 59
- CHAMBERLAIN, Mr. A. 32, 36 n., 83
- CHENEY, Mr. E. J. 30 n., 31 n.
- CHURCHILL, Mr. W. S. 32, 36 n.
- CONSCRIPTION . 1 ff., 4, 28, 33, 35 ff.
- Lord Kitchener's opinion . . . 33, 38
- Mr. Lloyd George's opinion . . . 4, 36
- Mr. Balfour's opinion 37
- Mr. Henderson's opinion 38 ff.
- Mr. Asquith's opinion 42 ff.
- See MILITARY SERVICE ACT.
- CREWE, Lord 32
- CURZON, Lord 32, 36 n.
- DELEVIGNE, Mr. M. 30 n., 31 n.
- DERBY, Lord . 41, 42, 43, 46, 48, 49, 50, 51, 55, 67, 67 n., 68, 72, 82
- Attestation scheme 41 ff.
- Speech at Mansion House (19/10/15), 41
- Pledge as to exemption of munition workers (16/11/15), 51, 68
- Report on recruiting campaign (20/12/15), 56, 56 n.
- Speech in H. of L. (25/1/16) . . . 64
- Speech in H. of L. (18/5/16) . . . 73
- Speech in H. of L. (22/5/16) . . . 74
- DILLON, Mr. 59
- DILUTION 65, 66, 78, 79
- DIRECTOR OF RECRUITING, 15, 20, 21, 47, 81, 82
- DODDS, Sir J. M. 31 n.
- DRAGE, Mr. G. 29 n.
- DURAND, Sir M. 71, 80 n., 81
- EDGE, Capt. 7
- ENLISTMENT—
- Statistics of 10
- FAWCETT, Mr. E. G. S. 71, 80 n.
- FOX, Mr. R. E. 29 n.
- FRANCE 33, 34
- GASSON, Mr. M. A. 29 n.
- GEORGE, Mr. D. Lloyd, 57, 60, 64, 67 n., 68, 72, 73, 81, 83
- Opinion on conscription 4, 36, 6
- Speech in H. of C. on badges (1/7/15), 13
- Pledge as to exemption of munition workers (16/11/15), 51, 68
- Letter to Mr. Long on badge (26/4/16), 69 ff.
- GRAVES, Mr. R. E. 80 n.
- GREENE, Sir W. Graham 30 n.
- GRIFFITH, Mr. Ellis 71, 72, 10
- HADFIELD, Sir R. A. 29 n.
- HENDERSON, Mr. A. 32, 37, 40, 41
- Memorandum on Conscription (7/9/15), 38 ff.
- HICHENS, Mr. W. L. 31 n.
- HICKS, Mr. Joynson 7
- HODGE, Mr. 5
- INDUSTRIAL CONSCRIPTION, 1 ff., 4, 5, 59.
- See MILITARY SERVICE ACT.
- INSPECTORS—
- Instructions to 6
- Difficulties of 7

JACKSON, Mr. C., 27 n., 29, 29 n., 31	
KITCHENER, Lord . . . 3, 4, 9, 38, 39, 41	
Speech at Guildhall (9/7/15) . . . 27	
Opinion on conscription . . . 33	
LABOUR EXCHANGES . . . 31, 82	
LANSDOWNE, Lord, 26 n., 27, 28, 31 n., 46	
LAW, Mr. Bonar . . . 59, 59 n.	
LOCAL GOVERNMENT BOARD . . . 46, 47	
LONG, Mr. W. H., 26, 29, 46, 62, 67, 68, 69, 75, 76, 81	
Speech in H. of C. (15/5/16), 71, 72	
MACARA, Mr. C. W. . . . 29 n.	
MACKINNON, Sir H. . . . 50, 70	
MACNAMARA, Dr. . . . 71	
MCNEILL, Mr. R. . . . 57	
MAHON, Major-General . . . 10	
MALLET, Mr. B. . . . 30 n., 31 n.	
MAN-POWER BOARD . . . 83, 83 n.	
MARKHAM, Miss V. R. . . 29 n., 31 n.	
MIDDLETON, Viscount . . . 83 n.	
MILITARY SERVICE—	
Cabinet Committee on exemptions from, 66 ff.	
MILITARY SERVICE ACT, 1916—	
Certificates of exemption . . . 56 ff.	
Provisions as to industrial compulsion, 59 ff.	
Direction given by M.M. . . . 62, 99	
Occupations certified by M.M. under, 62, 100 ff.	
MILITARY SERVICE (AMENDMENT) ACT, 1916—	
Certificates of exemption . . . 71 ff.	
Provisions as to industrial compulsion, 74 ff.	
MILITARY SERVICE TRIBUNALS, 45 ff., 53, 67, 68, 71 ff, 85	
MOGGRIDGE, Admiral . . . 80 n., 81	
MONRO, Sir H. C. . . . 30 n., 31 n.	
MUNITIONS OF WAR ACT, 1915—	
Provision as to badges . . . 13	
MUNITIONS COMMITTEES . . . 22	
MUNITIONS WORK—	
Definition of . . . 15, 19	
NATIONAL INSURANCE ACT, . . 29, 29 n.	
NATIONAL REGISTER . . . 33, 42	
Mr. C. Jackson's Comm'ttee, 27 n., 29, 29 n., 31, 45	
Inter-departmental Committee, 30, 30 n., 31, 84	
NATIONAL REGISTER COMMITTEE, 31, 31 n., 32, 48, 49	
NATIONAL REGISTRATION ACT, 1915, 26 ff.	
NATIONAL SERVICE. . . . 1 ff., 27, 36	
NIELD, Mr. H. . . . 29 n.	

OCCUPATIONS—	
Protected from Recruiting, 7, 9, 14, 15, 89 ff.	
Starred, 29 ff., 31, 32, 42, 44, 52, 53, 67, 95 ff.	
Certified 62, 100 ff.	
PINK FORMS 29 ff., 47	
POTTER, Mr. F. 29 n.	
PRIORITY CERTIFICATES . . . 78, 78 n.	
ROBERTSON, Mr. J. M. . . . 28	
RUSSIA 34, 36	
SELBORNE, Lord 32, 36 n.	
SAMUEL, Mr. H. 57, 61, 71	
SHIRKERS 73, 74, 80	
SIMON, Sir J. 61	
SMITH, Sir H. Llewellyn, 30 n., 31 n., 47, 48, 49, 50, 57, 65, 67	
STATISTICS—	
Of enlistment 12, 107	
Of badged men 104 ff.	
Of men wrongfully enlisted . . . 98	
Of badges issued by W.O. . . . 10	
Of badges issued by Adm. . . . 65	
Of pink forms written and starred 32	
Of men enlisted under Lord Derby's scheme, 56	
Of appeals against badged men, 54, 80.	
TALLENTS, Mr. S. G. 65, 81	
THOMAS, Mr. J. H. 29 n., 31 n.	
TREASURY—	
View of economic and financial situation, 33 ff.	
TROUP, Sir E. 31 n.	
TURNER, Mr. F. L. 69, 70	
UNITED STATES 33, 34	
WALSH, Mr. S. 83 n.	
WARDLE, Mr. 75	
WAR MUNITION VOLUNTEERS . . . 63	
WAR OFFICE—	
Recruiting policy. 5 ff.	
Issue of badges 8 ff.	
Correspondence with M.M. as to badges, 16, 17	
Need of National Register . . . 27	
View on military capacity and obligations of country, 32, 33	
Arrangements with M.M. as to exemptions, 45, 46, 47 ff., 66 ff., 84, 85.	
WAR POLICY COMMITTEE, 32, 35, 36, 36 n.	
WOMEN—	
Number placed from War Register of, 28	
National Registration of . . . 28	
YOUNGER, Sir G. 31 n.	

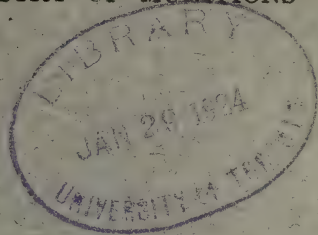


CONFIDENTIAL.

For Official Information only.

Crown Copyright Reserved.

HISTORY OF THE MINISTRY OF MUNITIONS



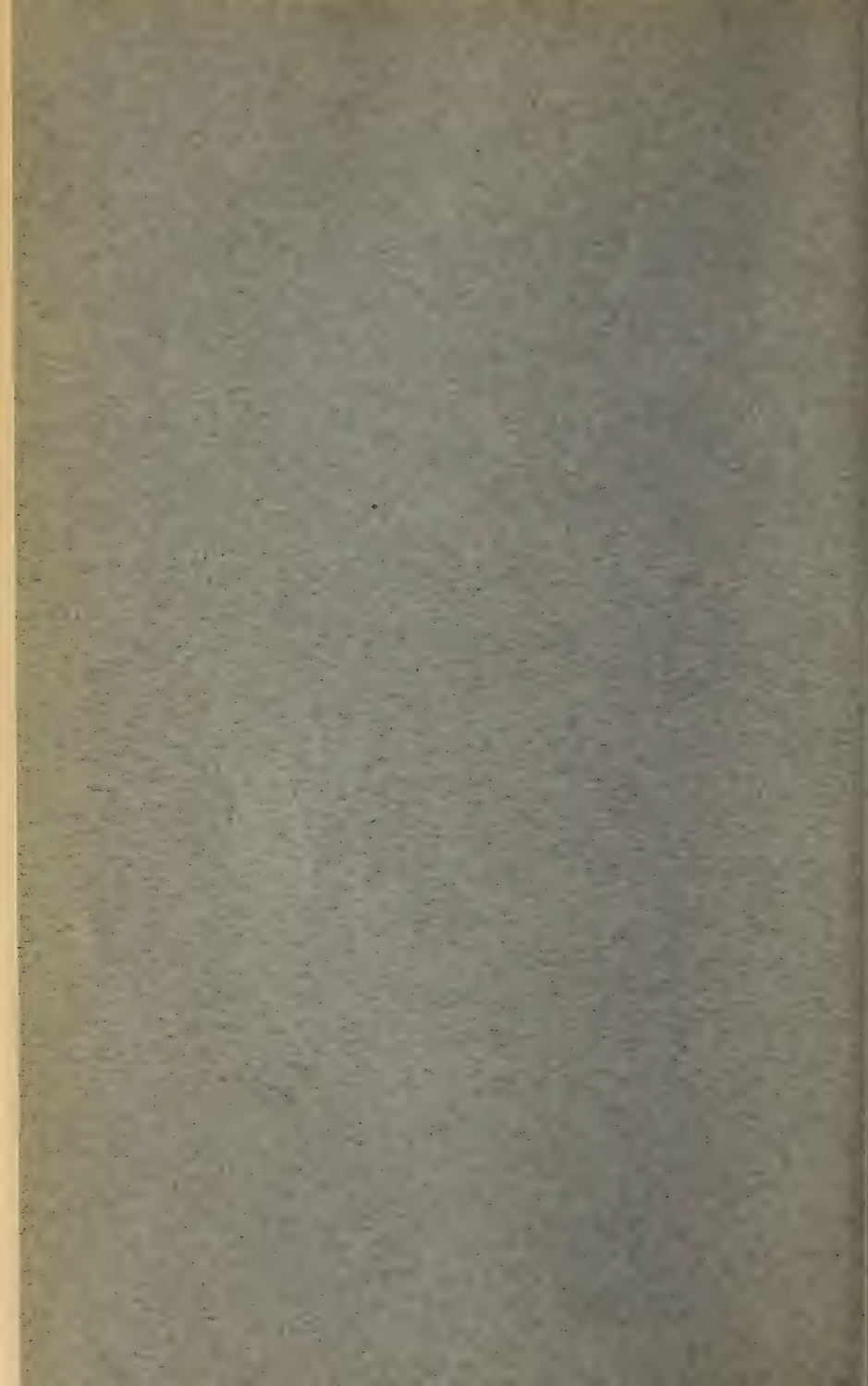
VOLUME IV

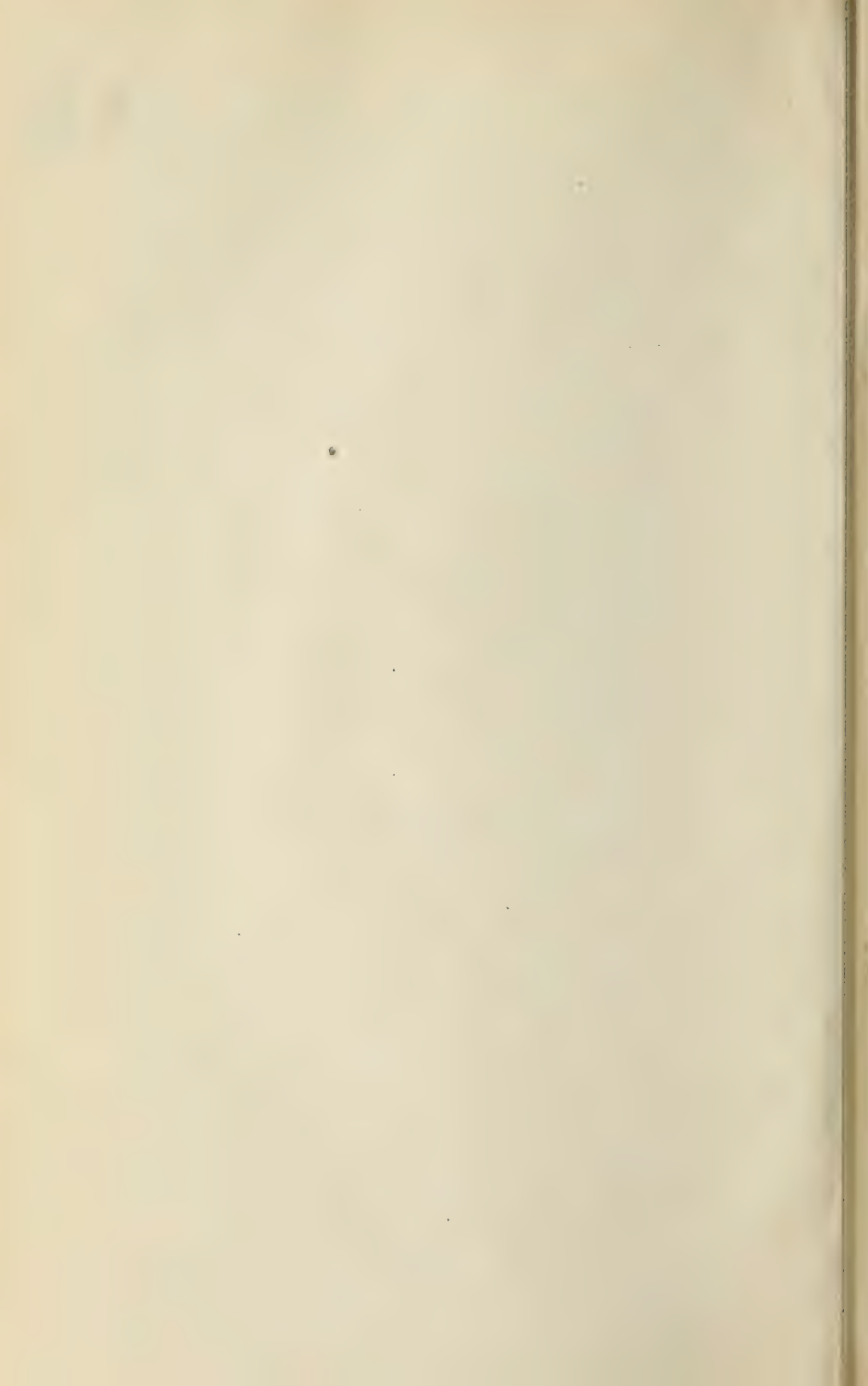
THE SUPPLY AND CONTROL OF LABOUR

1915-1916

PART IV

THE PROGRESS OF DILUTION



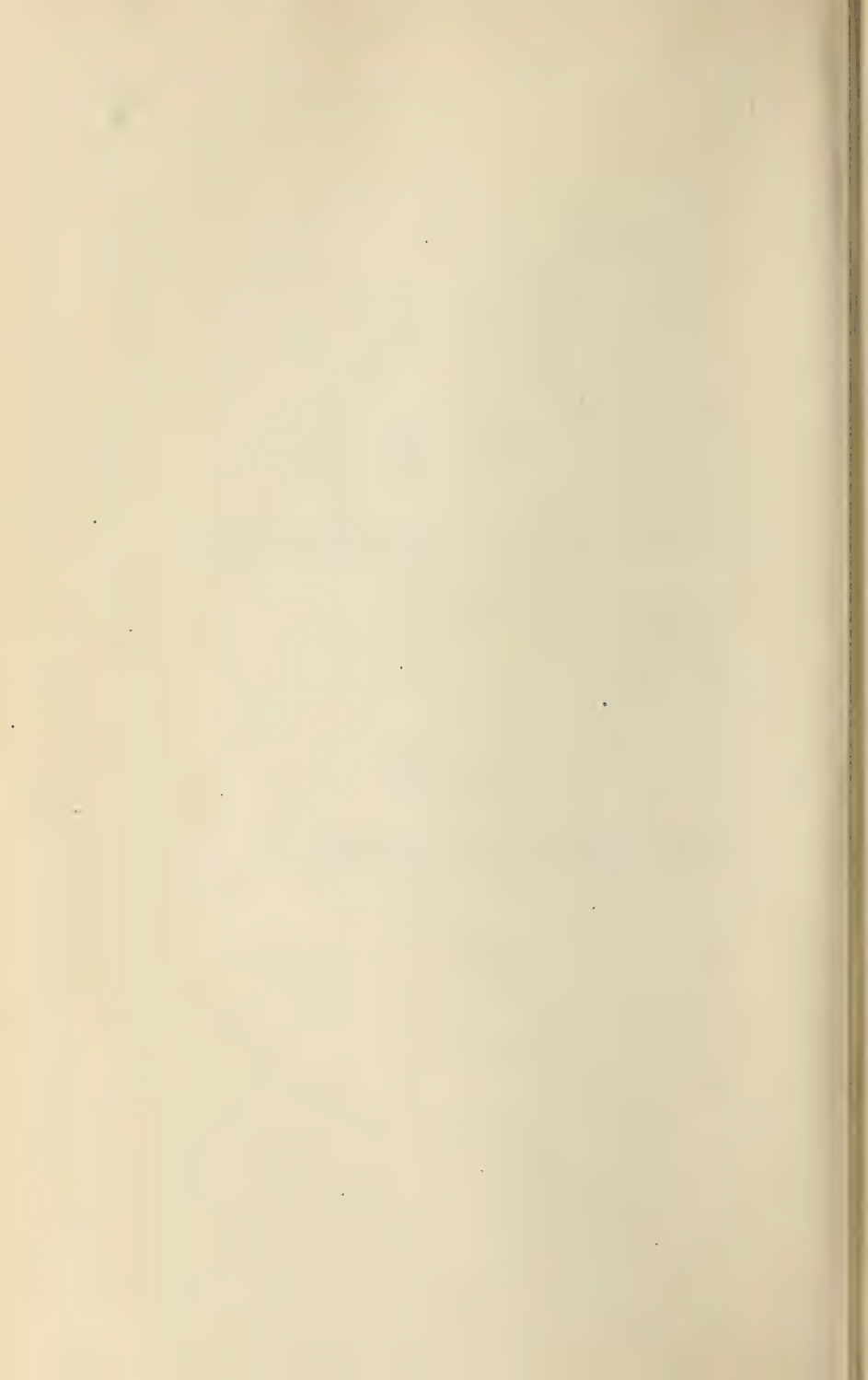


VOLUME IV

THE SUPPLY AND CONTROL OF LABOUR,
1915-1916

PART IV

THE PROGRESS OF DILUTION



CONTENTS.

CHAPTER I.

The Demand for Labour.

	PAGE
1. Introductory	1
2. The Verification of Demand	2
3. The Labour Priority Committee	5
4. Classification of Demands for Labour and Priority Instructions to the Labour Exchanges	10
5. The Gradation of War Work in relation to Labour Supply	12
6. The Demand for Unskilled Labour	15
7. The Demand for Skilled Labour	17

CHAPTER II.

War Munition Volunteers.

1. Proposals to modify the W.M.V. Scheme	23
2. The Devolution of the Allocation and Transfer of W.M.V.s on the Local Labour Exchanges	24
3. Obstacles to the transfer of War Munition Volunteers ..	25
4. Re-enrolment	29
5. Statistics of Enrolment and Transfer. November, 1915, to July, 1916	30
6. The Value of the W.M.V. Scheme	31

CHAPTER III.

Release from the Colours.

	PAGE
1. Allocation of the Men released under the United Kingdom Bulk Scheme	35
2. The B.E.F. Bulk Scheme. December, 1915—March, 1916	40
3. Wages, Allowances and Discipline	44
4. The Claim of the War Office to adjudicate on the relative urgency of Munitions Work	47
5. The War Office proposes to alter the status of Released Soldiers	52
6. Summary of Results'	56

CHAPTER IV.

The Training of Munition Workers.

1. The problem of using the Technical Schools to the best advantage	58
2. Preliminary steps towards the formulation of a Policy. August—October, 1915	60
3. The Ministry's Scheme for training Semi-skilled Munition Workers in Technical Schools. November, 1915 ..	63
4. Some difficulties experienced in carrying out the Ministry's Scheme	65
5. The Training of Tool-setters.. .. .	67
6. Training in Lead-burning, Gauge-making, and other kinds of Skilled Work	70
7. Summary of Results. July, 1915—August, 1916 ..	73

CHAPTER V.

Dilution.

1. The economic conditions of Dilution	74
2. The distinction of "Skilled," "Semi-skilled," and "Unskilled"	75
3. The principal characteristics of Dilution	78
4. The employment of Women	81
5. The Legal Powers of the Ministry in respect of Dilution..	83
6. The Attitude of the Skilled Men to Dilution	86
7. The Attitude of the Employers to Dilution	91
8. The Attitude of the Supply Departments to Dilution ..	93

CHAPTER VI.

The Clyde Dilution Strikes.

	PAGE
1. The attempt to introduce Dilution at the Works of Messrs. J. Lang and Sons. August to December, 1915	98
2. Mr. Lloyd George's Visit to Glasgow, Christmas, 1915—	101
(a) The Meeting at Parkhead Forge	102
(b) The Views of the Clyde Workers' Committee	103
(c) The Meeting at St. Andrew's Hall	105
3. The Stay-in Strike at Dalmuir. 29 December, 1915	110
4. The Suppression of the <i>Forward</i>	111
5. Effort of A.S.E. to reach agreement with Employers on Dilution	114
6. The Appointment and Procedure of the Clyde Dilution Commission	116
7. Dispute concerning Circular L.2, and Strike at Messrs. Lang's	119
8. The Suppression of the <i>Worker</i>	123
9. Progress of the Dilution Commission's Work	125
10. Demand for Advance in Wages from 17 Trade Unions	127
11. The Strike at Parkhead Forge and other Shops engaged on Howitzers	129

APPENDICES.

I. Statistics of Employment in the Munitions Industries. July, 1914, to July, 1916	139
II. Demand for Labour in Munition Trades from firms on Government Work. July, 1915, to October, 1916	147
III. Demand for Labour in Munition Trades. Vacancies notified weekly to Labour Exchanges for Men and for Women in Ship-building, Mechanical Engineering, Chemical and Explosive Manufacture. July, 1915, to August, 1916.. .. .	148
IV. Demand for certain classes of Labour in Munitions Trades from firms on Government Work, 1916	149
V. Statistics of War Munition Volunteers.. .. .	149
VI. Employment of W.M.V.s in certain establishments	150
VII. Sums paid by Ministry of Munitions to firms in respect of W.M.V.s employed by them	151
VIII. Statistics of Demand in Munition Industries, and of Soldiers available for Release, November, 1915	152

APPENDICES—*continued.*

	PAGE
IX. The Royal Warrant concerning the Status and Allowances of Soldiers released from the Colours ..	155
X. Trade Distribution of Released Soldiers at work on December, 1917	156
XI. Statistics of Releases from the Colours	157
XII. The Supply of Labour for the Munitions Trades—Average number of vacancies filled each week by the Labour Exchanges and the Ministry of Munitions for Skilled and Semi-skilled Men, August, 1915—August, 1916	158
XIII. Statistics concerning the Number of Students trained in Technical Schools and placed in Munitions Factories, January to September, 1916	159
XIV. List of Universities, Colleges, and Technical Schools which took part in the Training of Munition Workers under the Ministry's Scheme in 1916 ..	160
XV. List of Processes upon which Women were employed, 1 June, 1916 .. .	161
XVI. Memorandum of Agreement between Admiralty and Ministry of Munitions of War in regard to the Delegation to the Admiralty of certain powers of the Minister of Munitions	171
XVII. Memorandum on the Procedure for giving effect to the Policy of Dilution	173
XVIII. Form of Schemes approved by the Clyde Dilution Commission	175
XIX. Mr. Lloyd George's meeting with the Shop Stewards at Glasgow on Christmas Day, 1915	176

INDEX.

Index	181
---------------	-----

CHAPTER I.

THE DEMAND FOR LABOUR.

I. Introductory.

The experience gained by the Ministry of Munitions in its attempt to meet the demands for skilled workmen between July and September, 1915, had demonstrated the serious and increasing shortage of pivotal labour and the necessity of deciding where the available supply was most urgently required. It was clear that many fewer than had been supposed of the mechanics not employed on Government work could be transferred to work on munitions of war, and that the demand for men of the highest skill to make guns, torpedoes and engines for ships, aircraft and motor transport, to erect and maintain the new machinery and to man the toolrooms of the great ammunition shops, would grow more acute as the new factories and extensions were completed. This demand could not possibly be met except by the most economical distribution of the skilled engineers in the country. Economy meant grading and concentration—the grading of the various kinds of munitions, the grading of the machinery and materials required for their production, the grading of firms according to their productive efficiency and the importance of their product, and the concentration of skilled labour at the points where it was especially needed.

In order to grade firms, it was imperative to ascertain their real demands, to check their estimates by investigating their equipment, their organisation and methods of production. Antiquated machinery, haphazard arrangement, absence of mechanical appliances for handling and transport, an ill-equipped toolroom or shortsighted and unscientific management might waste skilled labour no less than the restrictive customs and practices of the Trade Unions. To form a sound judgment on these matters and to convince the employers of what was wrong, investigators of the highest technical attainments were required. Moreover, it was essential that all demands for labour should come through one channel, and should be verified as far as possible on the spot. Otherwise, duplication could hardly be avoided; nor could genuine and urgent demands be distinguished from speculative or careless estimates. The only machinery available for this purpose was the local and central organisation of the Labour Exchanges. As soon as a true picture of the demand for labour had been obtained, it became feasible to determine the relative urgency of the claims under the guidance of a committee representative of the War departments. It remained then to concentrate the whole of the available supply of labour at the decisive points and to augment the supply as far as possible by dilution and by training. It was

not enough to transfer War Mmunition Volunteers and soldiers released from the Colours; the men and women registered in the ordinary way at the Labour Exchanges must be directed to the establishments in which their services were most urgently required. In so vast and complex a system no doubt many errors were made—inequalities of treatment, misdirections of energy, occasional dislocations were hardly avoidable; but for the first time the sources of supply were co-ordinated and the stream of labour was guided according to a reasoned and balanced scheme.

II. The Verification of Demand.

In order to prevent the allocation of Mmunition Volunteers or soldiers where vacancies could be filled from local or civilian sources, firms which applied for labour of these classes were required in August, 1915, to sign a declaration that they had notified their demands without success to the local Labour Exchange. These declarations were checked by reference to the National Clearing House Newspaper, which circulated all orders that could not be met locally. But there was reason to believe that a complete picture of the demand for labour was not presented by this means. Orders which were dead still appeared in the newspaper, because either the firm or the manager of the Exchange had omitted to inform the Central Office of their cancellation.¹ Some firms had not yet learnt to take advantage of the Exchanges and relied on advertisement or application at the factory gate.² The Labour Supply department received many demands, some explicit, some indefinite, from other departments or their inspectors. Consequently, the statistics compiled by the Ministry were vitiated by duplication and by omission.

On 19 November, 1915, the Department took the first step to remove these defects.³ In order to allocate the soldiers, for whose release the Ministry had just completed the arrangements, a circular was sent to all controlled firms and to others engaged on important work, requesting them to pass their requirements through the local Exchange before 25 November, unless they had already done so. At the same time, the Managers of the Exchanges were asked to approach the firms and assist them in complying with this request.⁴ In this way the Ministry was enabled to ascertain with some degree of accuracy the demand for the various classes of workmen who might be released from the Colours.

But the picture was still imperfect. The demand was unverified, and it was essential to establish a procedure which would afford the basis for compiling detailed weekly statistics classified according to

¹ Cf. C.O. Circ. 2296.

² Only 660 controlled establishments out of 1,500 had notified their labour requirements to the Labour Exchanges or the Ministry of Munitions by 17 November, 1915.

³ M.W. 65942.

⁴ L.E.C.O. Circ. 2128.

urgency. Consequently, as the result of a strong minute drawn up by Mr. J. B. Adams on 16 December,¹ a circular letter was sent out, stating that after 1 January, 1916, no demand for munition workers could be considered by the Minister unless it was first addressed to the nearest Exchange.²

"The Minister, in considering whether or not he should take special steps to supply the demand for skilled munition workers at any controlled establishment, will have regard to the following points :—

(1) Whether every effort is being made by the establishment to increase its output through the organisation of night shifts and by working overtime as much as possible.

(2) Whether the establishment is carrying out the policy of dilution laid down in Circular C.E. 1,³ that is to say, is using unskilled labour, whether of men or of women, to the greatest possible extent, and reserving skilled men for the work which they alone can perform.

(3) Whether the establishment is employing on unessential private work men of the same class as those for whom it is asking in connection with munition work."

Since the firm's estimate of its requirements was subject to these conditions, it was necessary to discover by inspection how far each firm could be relied on to make the most economical use of its labour. In verifying the demand the inspector would, at the same time, make suggestions for carrying out the policy of dilution, and use the demand as a lever for giving effect to that policy, besides obtaining for the Ministry information on which further pressure could be exercised if necessary. For these purposes the experience of the Labour Exchange managers and inspectors was co-ordinated and brought into action, and engineers of high attainments and standing were appointed as special investigators by the Ministry to deal with the most important establishments, to set up standards, and to propose and watch the success of experiments.⁴

The inspection of a large establishment was a serious task, occupying, as a rule, several days. Among other things, the investigator was required to give statistics classifying the workpeople according to their trades and degree of skill ; an account of the machinery and plant ; a full summary of the firm's contracts, their progress and duration, with estimates of the proportion of work for war purposes, home trade, export and stock ; particulars of the hours worked, overtime, night shifts and timekeeping ; and a statement concerning the attitude

¹ M.W. 71754.

² Circular L.25.

³ See Vol. IV., Part I., Chap. IV., Sect. VII.

⁴ On 15 January, 1916, the Treasury agreed to the appointment of 22 special investigators for six months, " for the purpose of explaining to employers the policy of dilution and endeavouring to secure its adoption." M.W. Est. 1002/62.

of the firm towards dilution, with recommendations for the more economical use of skilled labour by the introduction of unskilled men and women, or the promotion of semi-skilled men, by subdividing operations, fitting up mechanical appliances for handling, or making machine tools fool proof. If the firm was not in a position to use the skilled men so released by starting night shifts, or extending their production in other ways, the Ministry would be advised to enrol them as Munition Volunteers and transfer them elsewhere. The investigator had no executive authority; he could only make recommendations to the Labour Supply Department. But his success really depended on his power of persuading the employer of the feasibility and advantage of carrying out his suggestions. For, although the Ministry might close the Labour Exchange against the firm, transfer such of their workmen as were willing to enrol as Munition Volunteers, and in the last resort remove their plant under the Defence of the Realm Act, yet the willing and active co-operation, not merely the acquiescence, of the employer was clearly an indispensable condition of the success of the policy of dilution, inasmuch as it offered so many handles for obstruction—diminished output during the period of transition, the expense of providing accommodation for women, the prejudices of foremen and charge hands, and the fears of the skilled workmen, which could easily be fomented into a fatal antagonism.

In the meantime, on 22 November, the Labour Officers and their assistants were placed under the direct charge of the Divisional Officers for Labour Exchanges.¹ Since they remained officers of the Ministry of Munitions, this arrangement rested upon the dual capacity of Mr. Rey, who retained his post as General Manager of Labour Exchanges, along with the direction of the Labour Supply Department, under Lord Murray of Elibank. The main object of the change was the co-ordination of such inspections as did not call for the special Investigators of the Ministry. Hitherto the Labour Officer was entitled to ask the Divisional Officer of Labour Exchanges for help if he and his assistants could not get through their work. But this procedure might involve delay and effort, which could be avoided if all the arrangements were in the hands of one officer. At the same time, the department in London was relieved of many inquiries which the Divisional Officer, with his wider experience, could answer on the spot.² The Labour Officer and his staff continued to deal with all cases which might involve friction of any kind with employers, more especially disputes or prosecutions under the Munitions of War Act.³ This was a considerable gain to the Officers of the Labour Exchanges, since it was most important that they should avoid all matters which might bring them into conflict with employers,⁴ and much of the work required by the Ministry was contentious if not explosive. On the other hand, although the Chief Labour Officer was still located at the Area Office of the Ministry, the cleavage between the local officers of the Labour and the Supply departments was deepened.⁵ This was

¹ L.E.C.O. Circ. 2126.

⁴ M.W. 43224.

² M.W. 35494/4.

⁵ Cf. M.W. 68029.

³ L.E.C.O. Circ. 2126, 2184.

regrettable, although it may be doubted whether it could have been avoided. The problem of finding the labour necessary for the output of munitions could only be solved by enlisting the whole strength of the Labour Exchanges in the service of the Ministry ; and the problem of allocating the labour available was primarily a question for the headquarters staff of the Ministry, in consultation with all the Departments responsible for the supply of war material. It seemed better, therefore, to co-ordinate all the local officers concerned with labour by sacrificing the unity of the Area Office than to secure that unity at the cost of imperfect co-operation with the Labour Exchanges.

The bulk of the work of verification fell upon the Managers of the Labour Exchanges. Mr. J. B. Adams emphasised its importance in a note covering Circular L.25.¹ For the first time in the life of the Exchanges they were burdened with the full responsibility of finding out exactly what the demand for labour was, and it would be their duty to make a special effort to organise labour for the production of munitions. The future of the Exchanges depended on the manner in which they carried out this work. Unless they succeeded, a long time must elapse before it could ever again be said that all labour should be engaged through the Labour Exchange. If the Manager was unable to verify the demand himself, he must apply to the Divisional Officer for help, and in special cases the Ministry would send a technical investigator to assist him. The Ministry, however, intended to rely on the efforts of the Managers to ensure that in future every demand for labour was *bona fide* ; and they must do all they could to see that the conditions laid down in the Circular L.25 were satisfied before an order was sent through the National Clearing House.

III. The Labour Priority Committee.

Early in July, 1915, the Labour Supply department had opened negotiations with the Admiralty, the War Office, and Armament Buildings, with a view to setting up machinery for grading the demands for skilled labour according to the urgency of the work in hand.² No arrangement, however, was made at that time. In allocating soldiers and Munition Volunteers, the officers of the Labour department were left to decide as best they could on the information gleaned from other departments, the statements of firms, and the reports of inspectors.

The first attempt to draw up a priority list for labour was made by a Committee set up informally on 15 October, 1915, under the chairmanship of Sir George Younger, to deal with the allocation of soldiers released from the Colours.³ It was ascertained from the Materials Priority Committee at Armament Buildings what munitions or components were considered most urgent, and from each of the Supply departments concerned what firms they were most anxious about. As a result, on November 2 the first priority list was drawn up, consisting of six firms (engaged on machine guns, rifles, gunsights

¹ Cf. C.O. Circ. 2163, 2205, 2272.

² M.W. 42911, 28589. See Vol. IV., Part I., Chap. I., Sect. V.

³ M.W. 68083. See p. 35.

and Stokes shells) and the new explosive factory at Queensferry. A fortnight later three more firms were added in order to accelerate the production of gauges and aeroplane engines. These firms benefited considerably from the preferential treatment accorded to them. One firm was offered no less than 30 gaugemakers; another had the option of all the tool-setters on the Live Register. But such lists were obviously inadequate even for the allocation of soldiers, not to mention the skilled labour available for transfer throughout the country.

Apart from the recommendations on which the priority list was based, the representative of the Labour Supply department obtained much valuable information from the daily meetings of the Priority Committee concerning other firms holding contracts which were urgent or in arrear. Indeed, from September, 1915, onwards his attendance at these meetings was perhaps the most decisive influence in maintaining the co-operation of the Labour Supply department with the various departments responsible for the supply of war material.

The Ministry of Munitions was placed in a difficult and invidious position in dealing with the demands of the Admiralty, and (in a less degree) the War Office for labour. The most urgent need at the moment was unquestionably heavy guns and ammunition for the Army, and to obtain these in time for the campaign of 1916 every assistance must be given to the machine tool makers as well as to the gun and shell factories. But the Ministry had been given a commanding position by the Munitions of War Act, and partly by its own administrative action, partly by its intimate relations with the Labour Exchanges, alone possessed the organisation necessary for securing and allocating the very inadequate supply of skilled engineers available for transfer to work on munitions. Being judge in its own case, the Ministry was not unnaturally suspected by the other War Departments of taking a less favourable view of their requirements than the importance of the supplies for which they were responsible warranted. The situation was not improved by the unsympathetic attitude of the Admiralty towards War Munition Volunteers, the uncompromising support given to the demands of their contractors, and their habitual secrecy concerning their programmes. Moreover, it was not clear that they were as ready to economise their skilled labour as the grave national emergency required.

When the Materials Priority Committee undertook to make recommendations to the Labour Supply department concerning the priority of firms for labour, the Admiralty representative maintained that four-ninths of the workpeople available should be considered as the Admiralty's share, if they needed so much. The Priority Committee agreed to this proposal for the time being, but Sir George Younger's committee refused to endorse it. It was impossible (they held) to earmark a fixed proportion of the supply for a particular department. The allocation of labour must rest upon the relative urgency of the demands from all quarters as they varied from time to time. Similarly, a suggestion from the Army Contracts department that any employees

of their contractors who might be released from the Colours should be reserved for their work was regarded as inadmissible.

On 30 November, 1915, the Admiralty wrote to the Ministry of Munitions¹:—

“ My Lords have noticed with grave concern a steady retardation of the rate of construction, and an increasing difficulty in promptly refitting commissioned ships for sea. . . . After full inquiry into all possible causes of these grave hindrances to the vital work of maintaining H.M. Fleet, My Lords have come to the conclusion that the outstanding cause is the shortage of available labour, principally due to the great and rapidly-increasing demand of the Ministry of Munitions for the skilled labour of the country. They feel, therefore, very strongly that the time has now arrived when H.M. Government must consider most carefully the pressing necessity of co-ordinating the demands for labour on the part of the two fighting services in order that due weight may be given to those requirements which, whether they appertain to the sea or land forces, are of paramount importance. The position is that there are two Departments, the Admiralty and the Ministry of Munitions, requiring all the labour which they can obtain, and having, under Regulation 8A(b) of the Defence of the Realm Regulations, equal legal powers as regards the regulation or restriction of the engagement or employment of workmen. The whole of the administrative machinery, however, which has been set up under the Munitions Act is under the guidance of the Ministry of Munitions, and My Lords feel most strongly that, through the absence of co-ordination between the two Departments, they are inadequately represented in the work of collecting and distributing the available labour, and will, therefore, be at a serious disadvantage, as the situation develops, in endeavouring to fulfil their responsibility for the maintenance of the Fleet.”

The letter proceeded to ask that the Admiralty should be represented on Sir G. Younger's committee; that arrangements should be made for consultation between the two Departments in regard to all instructions issued for the guidance of the Labour Exchanges and for maintaining continuous touch between the local Labour Exchanges and the local representatives of the Admiralty; and that they should be allowed to help in the application of the principle of dilution to controlled establishments in which the Admiralty was interested.

“ It is understood that there is a list of selected firms, known as the Priority List, to which considerable weight is allowed in the distribution of labour generally. The Priority Committee, to which the preparation of this List is entrusted, has approached the Admiralty informally in the matter, but

¹ C.P. 011737/15/X51526. M.W. 66487.

it is felt that in a matter of this importance the Admiralty should be in direct and effective touch with the Labour Supply department, or whichever department has to assume ultimate responsibility for this List, so that the Admiralty will have a direct voice in the preparation of the List and its periodical revision. At the present time the Admiralty possesses no copy of this List, and no knowledge of the number of firms included, or even of the guiding principles of selection."

The letter concluded with a request for a conference on the basis of the terms set out therein.

These proposals were welcomed by the Ministry, who had urged more than once, by official and semi-official letters and verbally, that some arrangement should be made with the Admiralty to co-ordinate the demands of the two Departments for labour.

The conference took place on 7 December, Lord Murray and Mr. Rey representing the Ministry, the Third Sea Lord, the Financial Secretary, and the Secretary representing the Admiralty.

At the conference the representatives of the Ministry undertook not to remove workmen engaged on Admiralty work, and to consult the local officers of the Admiralty before transferring men doing private work from shops where Admiralty work was in hand. It was understood that the Labour Exchanges, as the machinery for receiving demands for labour and enrolling and transferring such labour as was available to meet these demands, would act on the instructions of a Labour Priority Committee, which would decide what preference and consideration should be given to the various firms in the allocation of this labour. Lord Murray asked that a representative of the Admiralty should be appointed to this Committee; he should be a person of high standing and able to speak with authority for all departments of the Admiralty concerning its programmes, policy, and requirements and their relative urgency. Sir Graham Greene thought that this condition would entail the formation of a new centre in the Admiralty for focussing the demands of the several Lords responsible for material and labour. It was decided that the necessary steps should be taken at once to constitute a new department for this purpose. The Admiralty agreed to co-operate both at headquarters and locally in carrying out the policy of dilution, which, as a highly technical matter, should be handled not in any spirit of departmental competition, but as of national importance.

On 15 January, 1916, the Admiralty informed¹ the Ministry of Munitions that "a new branch, called the Priority section, had been constituted in the Admiralty to deal with all questions of priority arising out of the necessity for bringing into relation demands for labour and materials for Admiralty purposes and for munitions work, and to maintain touch, as officially representing the Admiralty on all such matters, with the Ministry of Munitions." Vice-Admiral A. Y. Moggridge had been appointed Director of the Priority section and would represent it on the Labour Priority Committee.

¹ M.W. 76241. C.E. 5982/15.

In the meantime, a similar arrangement was made with the War Office. On 10 November, 1915, Sir R. Brade had written to say that the Army Council were disturbed by complaints from their departments and contractors about the interference of the Ministry with their labour in a way likely to prejudice the execution of their contracts for the War Office.¹ The main difficulty arose out of the claim of the Director of Mechanical Transport, who contended that the Ministry should not interfere with the firms "controlled" by his department, and was inclined to regard the inspectors of the Ministry as trespassers. The Ministry could not accept this contention, since there was reason to believe that the output of the firms concerned was in excess of the requirements of the War Office and that the department was issuing permits for the sale of motor lorries to private firms. On the other hand, close relations were maintained between the Directorate of Military Aeronautics and the Labour Supply department, which had been able to render considerable assistance to the firms engaged on aeroplane engines.

Accordingly, the Ministry conferred with the War Office on 14 December, and subsequently proposed arrangements similar to those agreed upon with the Admiralty. The demands of the two departments for labour should be co-ordinated by the Labour Priority Committee, on which the War Office should nominate a member to deal with all their requirements. Inspectors of the Ministry visiting firms engaged on work for the War Office, in connection with dilution or the enrolment and transfer of Munition Volunteers, should consult the local officers of the War Office in order that their views might be fully considered before any decision was taken. Men actually employed on War Office contracts would in no case be moved by the Ministry. The War Office accepted the principle of dilution and would assist the Ministry to carry it out in establishments doing work for the War Office; for this purpose the technical officers of the War Office would confer with the representatives of the Ministry in order that the methods by which dilution was being effected might be explained to them, and joint inspections should be arranged if required. On 6 January, 1916, Sir R. Brade wrote to say that the Army Council concurred generally in these proposals, and had nominated Mr. N. F. B. Osborn as their representative on the Labour Priority Committee.²

On 8 December, 1915, Sir F. Black had agreed³ to Lord Murray's request that Armament Buildings should be represented on the Committee. Mr. Lee Murray was appointed for this purpose; and it was subsequently arranged that he should represent also the Explosives and Trench Warfare Supply departments. The other members of the Committee were Mr. C. F. Rey, Mr. J. B. Adams, and Mr. W. T. Layton. The first meeting took place on 24 January, 1916, at which Mr. Rey acted as Chairman in the absence of Lord Murray. On 16 February it was announced that Lord Murray had

¹ M.W. 86402.

² M.W. 68083/5. 1/Gen. No./1626.

³ M.W. 68083/3.

resigned his position in the Ministry of Munitions owing to ill-health, and Sir H. Llewellyn Smith succeeded him as Chairman of the Committee.

The Labour Priority Committee met weekly. No terms of reference were drawn up for it, nor did it define its functions and powers for itself. The representatives of the Labour Supply department at first claimed that even after the Committee had decided to give a firm priority for labour, its demands should not obtain preference until the department had satisfied itself that the need could not be met by dilution. But the Admiralty from the outset maintained that dilution in the Dockyards was a matter entirely for itself, and it soon established its claim to decide how far dilution should be pressed in the shipbuilding yards and marine engineering shops. The War Office took little interest in the Committee. The departments responsible for the supply of military aeroplanes and mechanical transport, like the Supply departments of the Ministry, preferred to deal directly with Mr. Adams and Mr. Stephenson Kent. In practice, therefore, the work of the Priority Committee resolved itself into a discussion of the Admiralty's requirements for labour, in which questions of minor importance were settled and causes of friction removed. But the Committee was incapable of determining the relative urgency of the Admiralty's programme as compared with the programme of the Ministry. Differences on that point, if pressed, could only be settled by the War Council. In fact agreement was maintained by accepting the lists prepared by the Priority section of the Admiralty and placing them on a level with the similar lists compiled by the officers of the Labour Supply department of the Ministry. If the Committee had met daily and been composed of technical representatives of the various Supply departments of the Admiralty, the War Office, and the Ministry, it might perhaps have established for itself a position analogous to that which was secured by the Materials Priority Committee at Armament Buildings, and have exercised a stricter control over the allocation of labour. As it was, the Priority List rapidly grew to such dimensions that only a small proportion of the demands which it covered could be satisfied. Establishments, therefore, such as the National Projectile Factories, whose needs must if possible be met without delay, were accorded "super-priority" by special order of the Ministry of Munitions.

IV. Classification of Demands for Labour and Priority Instructions to the Labour Exchanges.

The Priority Committee was responsible for the Priority List only, which was a list of firms. Other firms applying for labour in munition trades were graded in three classes.¹ The classification was built upon lists made by the Divisional Officers and modified by the Adjudicators after consideration of Inspectors' reports and consultation with other Departments. Class I. was subdivided into three

¹ M.W. 84397.

groups—group (a) comprising all firms known to be engaged on work of national importance, whose demands were certified as *bona fide* after inquiry, with the exception of shipbuilding and marine engineering firms, which constituted group (b). Group (c) contained firms known to hold important contracts, whose demands had not recently been verified. Firms adjudicated as wasting skilled labour on unskilled or unessential work were placed in Class III. or on the Black List. Class II. covered all other firms which had applied for skilled men of the kinds required for munitions work, but about whose claims nothing favourable was known.

The first Priority List was circulated to the Managers of the Labour Exchanges on 28 January, 1916. On 21 February Mr. Rey issued instructions¹ that “all demands for labour of any type from firms entered on this list must be given priority over all other demands for similar types of labour, and the classes of labour required by firms on the list are to be offered to those firms, and to no others, until they have been refused by those firms.”

From 6 March the orders of the priority firms for labour in the munitions trades, hitherto printed in the National Clearing House Newspaper, were circulated separately in the Ministry of Munitions Labour Demands Gazette.² On 3 April Mr. Rey issued further instructions³; certain demands by firms on List I. and all demands by firms on the Priority List, which did not appear in the Gazette, would be underlined in the National Clearing House Newspaper. “Applicants suitable for employment of types appearing in the Labour Demands Gazette must in all cases be offered the vacancies in the Gazette, and urged as a patriotic duty to accept them in preference to other vacancies. After every effort has been made to place them in each of the suitable vacancies in the Gazette, they should be offered all suitable vacancies of firms on List I. underlined in the Clearing House Newspaper. They must not be offered to other firms until it is quite clear that they will not accept work with firms on the Priority List or List I. Great importance will be attached to the number of skilled men placed by Labour Exchanges with firms on the Priority List, and in a lesser degree on List I., compared with the number placed with other firms.”

These instructions left firms not included in the Priority List or List I. with little chance of satisfying their demands for skilled labour through the Labour Exchanges, which were in effect closed to them, unless they happened to be situated in districts where there was no preferred firm to compete for such men as could not be induced to move elsewhere.

Although the Priority Committee was finally responsible for the Priority List, its compilation was necessarily departmental work. The Priority Section of the Admiralty prepared the list of their contractors, but the rest of the work was done under the direction of

¹ L.E.C.O. Circ. 2305.

³ L.E.C.O. Circ. 2378.

² L.E.C.O. Circ. 2329.

Mr. Stephenson Kent, who had succeeded Mr. Alexander Duckham as Chief Adjudicator on 27 November, 1915. From this date the work of adjudication, which was transformed from decisions on the protests of employers against the removal of Munitions Volunteers into a classification of firms and the distribution of their orders for labour among the various lists, passed more and more into the hands of the regular officers of the Labour department, as it increased in complexity and involved not only decisions on the reports of inspectors, but constant inter-departmental consultation about the relative importance of contracts and sub-contracts, the examination in detail of the weekly statistics concerning the demand and supply of the various types of labour required, and the consideration of the different methods of meeting the demand by dilution and training or the offer of soldiers or Munition Volunteers. The knowledge necessary for this work could be acquired only by men closely connected with the Ministry and intimately acquainted with its actual requirements from time to time and the changing phases of its policy. The majority of the original adjudicators recognised the change and abstained from taking any further part in adjudication. But some confusion and uncertainty was caused by the necessity for reversing the decisions of those who still attended. Mr. Stephenson Kent therefore suggested, on 25 February, 1916, that the Committee of Adjudicators¹ should be dissolved, and a letter written to them which, while thanking them cordially for their past services, should point out that the rapid and complex developments of recent months rendered it necessary for the Ministry to entrust adjudication to officers in constant and close touch with itself. Accordingly, on 18 May, 1916, Mr. Lloyd George wrote to the members of the original Committee, explaining that it was unnecessary to make further calls on their services, and expressing his warmest thanks for the great assistance which they had rendered at a difficult time by undertaking work which had frequently been exacting, and had always been highly responsible.

V. The Gradation of War Work in Relation to Labour Supply.

In order to make a statistical estimate of the demand for labour to increase and accelerate the output of munitions, it is necessary to determine which trades and industries should be treated as specially devoted to munitions. The Munitions of War Act, 1915, defined munitions work as the manufacture or repair of arms, ammunition, ships, vehicles, aircraft or any other articles required for use in war, or of the metals, machines or tools required for that manufacture or repair. The Amendment Act of 1916 added merchant ships certified by the Board of Trade as necessary for the successful prosecution of the War, materials specified by Order of the Minister of Munitions as required for the manufacture or repair of munitions, the supply of light, heat, water, power or tramway facilities certified as of importance for the purpose of carrying on munitions work, and the

¹ See Vol. IV., Part I., Chap. I., Sect. IV.

erection or repair of works, buildings, machinery or plant for naval or military purposes, the production of munitions or the accommodation of munitions workers.

But in relation to the supply of labour, certain metal and chemical trades have a special claim to the title of munitions industries. For the demand for arms, ammunition, ships and aircraft became, in the course of the second year of the War, so intense that it would have absorbed the entire capacity of these industries had it been unchecked. Such a course indeed would soon have proved self-destructive; for the railways, the mines, and, in short, the whole mechanism of production would quickly have come to a standstill for want of repairs and renewals. Consequently, in so far as the capacity of these industries was properly utilised, they were engaged on munitions or something under the circumstances as important as munitions, and their expansion was necessary wherever it was practicable. On the other hand, the demand for equipment, such as khaki or boots, by no means exhausted the capacity of the textile or clothing trades. A sufficient margin remained to meet the needs of the civil population. For although the military demand exceeded the civilian demand which it displaced, the two demands were similar in kind, and the number of people to be clothed and shod remained the same. In these and similar trades, therefore, the military demand could be met at the expense of the output for other purposes without greater inconvenience to the people than the magnitude of the War justified.

The policy of the Labour Supply department, therefore, was based on a conception of war work somewhat different from the definition of munitions work in the Munitions of War Acts. Primarily it meant the manufacture or repair, for the British Government or their Allies, of arms, ammunition, ships, vehicles and aircraft, the metals, machines or tools required for that manufacture or repair, the chemicals used in the production of explosives, and other materials urgently needed, such as optical glass. As the demand became more insistent, it covered the getting of minerals, such as iron ore, ganister and limestone, but not coal, which for political and departmental reasons was left outside the sphere of the Ministry of Munitions. It did not include military equipment such as clothing or boots; nor did it cover the preparation of food for the Forces. But machinery certified as necessary for the production of these articles, such as textile, boot-making, baking, milling or refrigerating plant, was included, being *in pari materia* with the machinery required for the output of munitions, and needing similar labour for its construction. Similarly the mechanical requirements of transport and power, railway material, engines, wagons, steam and motor lorries, cranes, conveyers, merchant ships, coal cutting machinery, gas and electrical plant, were of necessity taken into consideration. To these must be added constructional steel, shafting and runways for the building or extension and equipment of munitions factories. Many firms, anxious to maintain an old business not unnaturally contended that all the orders they could get for work of these kinds were of importance

for the successful prosecution of the War, and justified the retention of their labour, if not their demands for assistance. The development of the Priority Branch at Armament Buildings fortunately provided a means of deciding how far these various orders should be reckoned as war work. This procedure was materially assisted by the issue in March, 1916, of Circular L.33, instructing controlled establishments, in pursuance of Regulation 8a of the Defence of the Realm Regulations, to classify their work according to its national importance, to give priority to each order in accordance with the class to which it belonged, and in placing a sub-contract with another firm to certify the class of the work sub-contracted; if any doubt arose concerning the class of an order to be placed or executed, application should be made to the Priority Branch of the Ministry for directions. The issue of these certificates, of which not less than a million were required each month, regulated as it was by the decisions of the Priority Branch, accelerated the mobilisation of the metal and chemical trades on war work, and afforded invaluable assistance to the officers of the Labour Supply department.

In the early days of the Ministry, many manufacturers argued that export work in general, not merely direct or indirect war orders for the Allies, should be reckoned as war work on financial grounds. Although this claim was substantial, it could not be allowed in the industries capable of producing armaments, because these appeared barely equal to meeting the demand for war material, which clearly took precedence of the claims of finance on these trades. Moreover, firms which had undertaken heavy contracts for munitions, entailing large expenditure and reorganisation, would have been irritated and discouraged if their competitors had been given every facility for carrying on a lucrative export trade and possibly capturing their own customers. Consequently, exports for neutral countries were not admitted as affording a sufficient reason against the removal or for the supply of labour. It was, however, recognised as not unreasonable, at any rate during the second year of the War, that firms should still devote a small proportion of their capacity to production for export or stock. Connections should, if possible, be maintained; spare parts would be required for renewals or repairs; and not infrequently there were gaps between war contracts or periods of waiting for material to fill in.

Thus the Labour Supply department of the Ministry of Munitions was primarily, and until the middle of 1916 almost exclusively, concerned with the metal and chemical industries. Other groups produced materials essential for the manufacture of munitions, such as ironstone, limestone, rubber and timber; but so long as imports were not seriously restricted, and until the Military Service Acts were brought into full operation, adequate supplies could be obtained from abroad or at home.

Within the metal group the industries most important to the Ministry were the iron and steel trades, embracing pig iron and steel manufacture, iron and steel rolling, tube making and iron founding,

the smelting, rolling, founding and manufacture of copper, brass, lead, nickel, aluminium and other base metals, wiredrawing, and the making of anchors and chains, nuts and bolts, and springs, marine, constructional, electrical and general engineering, shipbuilding, the cycle and motor trades, and the manufacture of small arms and scientific instruments. By July, 1916, direct or indirect work for the British and Allied Governments constituted at least 80 per cent. of the output in each of these industries, which employed 80 per cent. of the males engaged in the metal trades at the outbreak of war, and 85 per cent. two years later.¹

Next to these came the tinplate, hard, hollow and tin ware trades, textile engineering, railway carriage and wagon, cart and motor body building, the cutlery and edge tool trades, which were occupied from 50 to 80 per cent. on Government work mainly in connection with military equipment or transport. In July, 1914, these industries employed 14·8 per cent. of the males engaged in the metal trades, which fell to 11·6 per cent. by July, 1916.²

The remainder, manufacturers before the war of stoves, ranges, bedsteads, safes, agricultural machinery, watches and clocks, gold, silver and electro plate, jewellery and musical instruments, claimed from 10 to 50 per cent. of Government work, involving in many cases new plant or the adaptation of old plant to new uses. Their male employees were reduced from 5·2 to 3·4 per cent. of those employed in the metal trades in the course of the first two years of the War.³

The chemical industries fall into two groups, of which the one, comprising the production of heavy chemicals, explosives and dyes, and tar distilling, counted at least three-fourths of its output as Government work, the other, including the production of drugs and fine chemicals, oil and tallow, soap and candles, fertilizers, disinfectants, paints and varnishes, matches, fireworks and seed-crushing, was engaged from 25 to 75 per cent. on Government orders. In some of the latter trades, though the proportion of the output counted as Government work might be relatively small, it was, notably in the case of glycerine, of primary importance, and varied directly with the total output, which consequently had to be maintained at the highest level possible. In the course of the first two years of the War the proportion of the males employed in the chemical industries rose from 36·2 to 49·3 per cent. in the first group, and fell from 63·8 to 50·7 per cent. in the second.⁴

VI. The Demand for Unskilled Labour.

The demand for labour in the metal and chemical trades was of two kinds. On the one hand was the demand for skilled men, which could only be satisfied by their transfer from firms engaged on less urgent work or from work on which their skill was not required, by their

¹ Appendix I., Table A I.

³ *Ibid.*, Table A III.

² *Ibid.*, Table A II.

⁴ *Ibid.*, Tables A I., II., III.

release from the Colours, or by training either in the workshop or in the technical school. On the other hand was the demand for unskilled workpeople, which followed upon the reorganisation of the factories, the introduction of automatic machinery, and orders for articles of the same kind in enormous quantities.

The demand for unskilled labour for the production of munitions may be justly, though roughly appreciated, if account is taken only of those metal and chemical industries which were most directly and extensively engaged on munitions work, together with the Royal Arsenal and Dockyards and the National Factories. In July, 1914, they employed 1,508,000 men and boys. A year later the number had fallen to 1,496,000, but by July, 1916, it rose to 1,753,000.¹ In the first year of the War 285,000 men joined the Colours, of whom 10,000 may be estimated as having returned to civil work before its close. In the second year 104,000 more enlisted, but at least 46,000 were brought back or returned to their previous occupations on discharge. Thus the net enlistment during the latter period, thanks to the issue of badges and the release from the Colours, did not exceed 58,000. On the other hand, 263,000 men and boys were drawn into these industries in the first year of the War, and 304,000 more in the second, the average monthly influx for the four quarters of the latter year being 36,000, 25,000, 26,000 and 14,000 respectively, figures which reflect the consequences of Lord Derby's Recruiting Campaign and the Military Service Acts.² Meanwhile the number of women and girls increased from 88,000 in July, 1914, to 118,000 in July, 1915, and 351,000 in July, 1916. In the course of the second year the rate of increase was rapidly accelerated by the Ministry's Dilution Campaign, the average monthly additions for the four quarters being 5,000, 13,000, 23,000 and 36,000 respectively.³ Thus, out of 2,104,000 employees, male and female, in July, 1916, at least 830,000 had been introduced since the outbreak of war, and 532,000, or 25 per cent. of the whole number employed, since July, 1915. Of these it may be affirmed without doubt that only a negligible proportion can have had any skill or experience in the work which they undertook. For although a considerable number of mechanics had been drawn into the National and other important factories, these men, with relatively few exceptions, must have been drawn from other workshops belonging to the munitions industries. In any case ample margin is allowed for any skilled men who may have come from other industries, from the Colonies or from Belgium, by the fact that no account has been taken of the replacement by new-comers of men removed by death, age, disease or disablement. On the other hand, it must not be forgotten that a large number of the men and women drawn into the munitions industries had already had industrial experience. Bricklayers, masons, carpenters and other skilled men from depressed trades took up munitions work, and many women were attracted from the textile and clothing trades by the desire for better wages or war work. Further, it must not be supposed that all those who came in were

¹ Appendix I., Table B I.

² *Ibid.*, Table B II.

³ *Ibid.*, Table B III.

engaged directly on the production of munitions. Many of the women in particular were employed as clerks, as viewers or gaugers, or as cooks and attendants in connection with the canteens.

So far as the demand for women is concerned, the figures given by the Labour Exchanges concur very closely with the figures from the Board of Trade Report just quoted. The average number of vacancies for women in the engineering, shipbuilding, and chemical trades notified each month to the Labour Exchanges rose from 5,513 for the first quarter of the second year of the War to 8,790, 20,420 and 30,389 for the succeeding quarters, the corresponding figures for the vacancies filled being 5,236, 8,309, 18,993, and 29,826. The difference between the latter figures and those quoted from the Board of Trade is mainly due to the fact that considerable numbers of women were engaged otherwise than through the Labour Exchanges. But the tendency of the two sets of figures is almost identical; and the curves which show the average weekly number of vacancies for women notified and filled in the metal and chemical trades may be taken as reflecting as accurately as a diagram can the progress of dilution during the second year of the War in so far as it affected the employment of women in the munitions industries.¹ Between July, 1915, and the end of the year the demand for women rises slowly but steadily from 1,087 a week to 2,294; between January and August, 1916, it ascends rapidly from 2,294 to 8,698. The Exchanges were able to fill 95 per cent. of the vacancies notified.

VII. The Demand for Skilled Labour.

For estimates of the demand for skilled men in the munition trades two sets of figures are available, one giving the vacancies notified to the local Labour Exchanges, the other those orders which could not be met locally and were circulated through the National Clearing House.

During the second year of the War the average number of vacancies for men notified each week in the engineering, shipbuilding, chemical and miscellaneous metal trades was approximately 6,400, of which rather more than one-third may be reckoned as orders for labourers.² In the skilled engineering and shipbuilding trades, which were insured against unemployment, it is likely that the vacancies notified to the Exchanges fairly represented the total demand of the country. In the uninsured trades probably a larger proportion of men were engaged otherwise than through the Exchanges. The weekly demand does not deviate widely from the average for the year except at two points. The figure for the four weeks ending 10 December, 1915, was 8,262 a week as compared with 5,811 for the preceding four weeks; and the figure for the four weeks ending 11 February, 1916, was 8,163 as compared with 5,316 for the preceding five weeks. The reason for the former rise was the Ministry's letter of 19 November inviting firms which desired soldiers released

¹ Appendix III.

² *Ibid.*

from the Colours to register their demands for labour at the Labour Exchanges, and the reason for the latter was Circular L.25, issued towards the end of December, which informed firms that after 1 January, 1916, the Minister could not consider any demand for munition workers unless it was first addressed to the nearest Exchange. These two peaks in the curve of demand are emphasised by the retardation of business in the Christmas week which intervened. Other features worthy of note are the rise in the weekly average for the four weeks ending 10 September, 1915, to 6,669, as against 5,465 for the preceding four weeks, and the slow but steady ascent from 5,922 in April to 6,736 in August, 1916. The former may be explained by the fact that in the middle of August, 1915, the Ministry decided not to submit Munition Volunteers or soldiers to an employer unless he signed a declaration that he had applied without success for labour of the class required to the Labour Exchange; the latter was due to the intensified demand for unskilled labour consequent upon the operation of the Military Service Acts. The engineering and shipbuilding demands, 70 and 17 per cent. respectively of the total, vary in a manner similar to the total demand, except that there is a steady fall in the shipbuilding demand from the middle of February, 1916, onwards. The demand in the chemical and explosive trades, 7·4 per cent. of the total, shows a notable increase in the first five months of 1916, due to the starting of the National Filling Factories. In the miscellaneous metal trades the demand varies like the total demand, but increases sensibly during the second half-year. The total number of vacancies for men in these trades notified during the second year of the War to the Labour Exchanges was 332,526, of which they succeeded in filling 235,202, or 70·7 per cent.

The figures available concerning the unsatisfied demand for men in the munitions trades from firms engaged on Government work are not reliable until the end of 1915. In Appendix II. a curve is shown which represents the figures compiled from week to week in the Labour Supply department. The curve rises steeply from 30,000 on 24 July, 1915, to 50,000 at the end of August; it then falls successively to 47,000, 38,000, and 33,000 in the course of the next three months. But it cannot be doubted that these changes are for the most part illusory. The rise was due partly to extravagant estimates made by employers of their requirements, partly to the duplication of demands which were received from firms directly, and through Munitions Committees, Government Departments, the local officers of the Ministry and the National Clearing House. Conversely, the fall was due to the verification of demands and the elimination of duplicate orders rather than to the supply of labour. From December, 1915, onwards the figures may be accepted as trustworthy, though demands were more and more closely scrutinised as time went on, both by the Labour Exchanges through which they were transmitted and by the special investigators of the Ministry. In spite of the large numbers of soldiers placed when the need was most acute in December, January, and February, the unsatisfied demand was no sooner reduced than it rose again above 35,000. From 18 February, however, until the end of

April there was a steady fall from 35,112 to 27,663, mainly due to dilution, which enabled firms to meet the bulk of their requirements by a more economical use of their own resources. But throughout May, notwithstanding the continued pressure of the dilution officers, the demand again rose, until it reached 33,450 in the first week of June, mainly owing to operation of the first Military Service Act. It was again denuded to 31,106 in the third week of July, when the second Military Service Act finally destroyed any hope there may have been of reducing the outstanding demand in the munitions trades to a more satisfactory figure.

Towards the close of 1915 systematic efforts were made to classify the demands for labour in the munitions trades. In November the first Priority List of six firms was drawn up. In December the Black List was circulated through the Labour Exchanges, in order to prevent the offer of labour (in particular soldiers released from the Colours) to firms from which the Ministry had decided to transfer Muniton Volunteers. About the same time the Labour Supply department drew up a White List, consisting mainly of firms engaged in connection with the heavy gun programme, to whom soldiers released from the Army in France should first be offered. This was supplemented by another list of firms whose claims were strongly supported by one or other of the Government Departments. At the end of January, 1916, the former list was superseded by the Priority Committee's List, and the latter by List I., which was subsequently divided into three parts, of which (a) and (b) comprised firms employed on important work, whose demands had been investigated and approved, while the third part (c) contained firms known to be doing work of importance, but not recently inspected. All firms stated to be engaged on Government work, but not included in one or other of these lists, were put on List II. The instructions issued to the Labour Exchanges gave firms on the Priority List the option of any skilled labour suitable and available. What they refused was offered to firms on List I. Practically, therefore, List II. did not differ from the Black List. .

Statistical information concerning the demands classified under these heads is not available until March, 1916.¹ The figures show that the process of classification was far from complete until the middle of May. Thus the Priority demand rose from 3,919 on 24 March to 11,298 on 19 May, after which it did not vary much. During the same period the demand from firms placed on List I. rose from 9,144 to 17,541. Conversely, List II. was reduced from 12,677 to 1,568, and the Black List from 4,124 to 2,606. In other words, as the investigation proceeded, more and more firms were transferred from the Black List or List II. to List I. or the Priority List, and by the middle of May it became apparent that four-fifths at least of the demand was genuine and urgent, and could not be met by dilution, though no doubt the knowledge that the Ministry was scrutinising every demand helped to bring about this result.

¹ Appendix II.

Three points may be specially noted concerning this classification of demand. First, it took the Ministry of Munitions nearly a year to obtain the necessary information, and required a systematic campaign of inspection and inquiry which lasted for six months. Secondly, although the Labour department wished to keep the Priority List as small and select as possible, on account of the shortage of supply, it was compelled, partly by departmental pressure, partly by the magnitude and the variety of the demands for war material, to admit the claims of so many firms that only a very small proportion of their orders could possibly be satisfied. Consequently special arrangements were necessary for the supply of labour to the National Projectile Factories and some other establishments whose needs were very pressing. Thirdly, the basis of classification was not quite satisfactory. A firm was placed on the Priority List in virtue of its labour requirements for a particularly urgent contract, but in practice any other order it might have given for labour would also receive precedence. It might therefore incidentally obtain for work not specially urgent labour which was needed more elsewhere. Similarly, a firm was placed on the Black List because the Ministry had decided to withdraw from it one or more Munition Volunteers. Presumably the firm was employing skilled men on work which did not require skill or was of no great importance; and it would have been absurd to supply with one hand what was being taken away with the other. But it might happen that a firm which could well spare a skilled man from one department needed labour in some other department for work of real urgency which the general embargo prevented it from obtaining. These defects were recognised, but could not be remedied unless attention was specially drawn to the anomaly. The grading of firms was difficult enough in circumstances so complex and fluctuating; to have attempted to grade every order for labour was a task hardly practicable without an elaborate local organisation regulated by frequent instructions from headquarters.

The principal supplies, in connection with which the early Priority Lists gave preference for labour, were heavy guns and howitzers and machine tools for their production, heavy shell, gauges for rifles and gun ammunition, copper driving bands, machine guns, aeroplane engines and river transport for Mesopotamia. But preference was also given to one or more firms engaged on other supplies, such as picric acid and cordite and plant for their manufacture, aluminium, steel castings, grinding machines, copper tubes, shell components, scientific instruments, tanks, patrol boats, airship sheds and balloon winches. On 31 March a large number of marine engineering firms were added, and on 23 June the principal ironmasters and steel makers. Thus the priority demand for skilled men grew from 2,494 on 3 March to 9,441 on 28 July, and the demand for semi-skilled men and labourers from 627 to 4,312.

At first the statistics of demand were classified under 36 occupations. But this classification proved much too rough for the purpose of supply. In particular it was necessary to analyse in great detail the demand for "fitters" and "turners"—terms which covered men

of the most diverse skill and experience. Although, viewed broadly, the engineering trades showed remarkable adaptability as the War went on, this very adaptability depended on skill which was highly specialised and rare, and for which no substitute could be readily obtained, if at all. In order to avoid waste and misfits the classification was refined, and by January, 1916, orders were arranged under 207 heads, including 34 varieties of "fitter" and "turner."

The fluctuations in the outstanding demand for the principal classes of munition workers during 1916 are shown in Appendix IV. The figures fall into two groups, of which one, comprising fitters, turners, tool-makers, tool-setters, and metal machinists, shows a tendency to decline which is marked until the end of April, when it is checked or even reversed for a time; the other, including men required in shipbuilding, the manufacture of metals, chemicals and explosives, and unskilled labourers, tends to rise, the movement upwards being emphatic from the beginning of May. This difference is due primarily to the fact that strong labourers became more and more difficult to obtain as the claims of military service were tightened, and the up-grading of apprentices and semi-skilled men, which was the only means of supplying skilled labour except release from the Colours or the transfer of Munition Volunteers, was facilitated in the engineering trades by the introduction of women in large numbers at the base of the pyramid, whereas in shipbuilding and metal and chemical manufacture women were unsuitable for many of the lower grades of work, and labourers could hardly be secured. The latter trades were therefore more adversely affected than engineering by the Military Service Acts.

The unsatisfied demand for fitters was reduced from 8,970 on 14 January to 5,385 on 12 May, and 4,987 on 28 July, 1916.

Similarly, the outstanding demands for turners and metal machinists were all but halved, falling in the course of these months from 4,745 and 3,445 to 2,442 and 1,727 respectively. The reduction in the demand for tool-makers and tool-setters was less marked; but it fell somewhat irregularly from 2,201 to 1,783. The Labour Supply department certainly deserves credit for eking out the available labour in the engineering trades, in such a way that it was able not only to meet the current demands for skilled labour, but even to reduce the outstanding demand by nearly half. Indeed but for this progress of dilution the starting of the National Projectile Factories, not to mention other workshops, would have greatly augmented the unsatisfied demand.

In the shipbuilding trades, on the other hand, though the current weekly demand fell by nearly one-third in the course of the first half of 1916, the supply was so short that the outstanding demand, after falling from 5,898 in January to 4,606 in April, rose to 6,667 in July. In metal manufacture the unsatisfied demand was 2,833 in January, and after remaining about that level until the beginning of May rose to 4,449 in July. The only source that was not negligible from which skilled

labour could be supplied was the Army. In chemical and explosive manufacture there were considerable fluctuations in the current demand, mainly due to the requirements of Gretna and the National Filling Factories. The outstanding demand rose from 1,117 in January to 2,594 at the end of April, when it jumped suddenly to 4,969, and then fell gradually to 2,127 in July, as the Labour Exchanges succeeded in overtaking it. The outstanding demand for unskilled men in the shipbuilding and engineering trades and in metal and chemical manufacture, which was circulated through the National Clearing House because it could not be satisfied locally, rose steadily from 2,931 in January to 5,209 in July, as might be expected in view of the claims of military service.

CHAPTER II.

WAR MUNITION VOLUNTEERS.

I. Proposals to Modify the W.M.V. Scheme.

Industrial conscription, open or disguised, as a remedy for the shortage of skilled labour had been dismissed in consequence of the discussions between the Ministry and the National Advisory Committee, and the resolutions adopted on 17 September, 1915, by the Conference of Trade Union Executives.¹ The demand for labour, therefore, could only be met by dilution in conjunction with improved methods for enrolling and transferring War Munion Volunteers, a wide extension of the policy of Release from the Colours, and a scheme for training munition workers adjusted to the requirements of manufacture on a great scale.

The relative failure of the arrangements for transferring Munition Volunteers suggested the question whether an improvement might not be made, if the work of adjudication and allocation were decentralised, and the Volunteers were paid, like released Soldiers, the rate of the district to which they were transferred, with a separate allowance, if it was necessary, to maintain a separate household. Local adjudication on an inspector's report might prove quicker and more decisive, inasmuch as it would be easier to make a firm bargain with the employer and to act before any new fact could intervene. Local allocation would avoid the misfits inseparable from any attempt to transfer large numbers of men on paper evidence, and confine within narrow limits the dissatisfaction and expense involved in moving men far away from their homes. The payment of the rate of the district to which a man was transferred would eliminate the discontent inevitable where men in the same shop were paid different wages for the same work, remove the principal objection of employers to the acceptance of Munition Volunteers, and free the Ministry from a considerable expense and the heavy burden of deciding on no very clear principle what a man was entitled to receive under the original terms of enrolment.

On September 29, 1915, the Central Munitions Labour Supply Committee took these questions into consideration, having before them memoranda prepared by Mr. Beveridge and Mr. Rey. The proposal to decentralise the allocation of Munition Volunteers was approved, and Mr. Rey was asked to submit a note on the administrative changes which the new procedure for transfer would involve.

¹ See Vol. IV., Part I., Chap. III., Sect. VIII.

But the suggestion that Munition Volunteers should be placed on the same footing as Released Soldiers in respect of wages and allowances was set aside by the Chairman, Mr. Henderson, who ruled that the terms of enrolment were irrevocably fixed.

The Committee was apparently disposed to favour the decentralisation of adjudication, but ultimately this proposal was abandoned. The Labour Supply department had not sufficient knowledge, either of the industrial resources of the country or of the relative urgency of supplies, to enable it to formulate a clear-cut policy for the guidance of its local officers, nor had it yet built up a local administration which could command the confidence of manufacturers. Local decisions, therefore, would frequently have been robbed of their speed and finality by appeals from employers to headquarters, even if they did not interfere with the production of munitions.

II. The Devolution of the Allocation and Transfer of W.M.V.s on the Local Labour Exchanges, November, 1915.

Accordingly, Mr. Rey drew up an outline of the new procedure by which the allocation and transfer of Munition Volunteers were devolved upon the local officers of the Labour Exchanges; and on 27 October elaborate instructions were issued, with the announcement that the change would take place on 1 November.¹

A list of all men already enrolled and regarded as suitable and available for transfer would be sent from the Ministry to the office of enrolment for allocation.

Men offering themselves of their own accord as Munition Volunteers would be enrolled as hitherto at the Labour Exchanges, which would remain open for this purpose till 9 p.m. on Fridays. Metal workers and patternmakers, who had stated on their National Registration forms that they were not engaged on Government work, should be invited to make personal application for enrolment, and enrolled, if on interview they were found to be skilled men in the munition trades. Where it was decided that a number of skilled men should be set free for transfer by dilution, the Labour Exchange Officer, acting on behalf of the Ministry of Munitions, should go to the works and enrol such men as might be willing up to the number specified. In the event of any obstruction or unwillingness to enrol, the co-operation of the Labour Advisory Board should be invited, with whom joint meetings should be held weekly or fortnightly to discuss the progress of enrolment, and consider any difficulties that might have arisen. Every care must be taken to ensure that the men were really what they represented themselves to be, and the industrial experience and qualifications of every man enrolling must be fully and accurately stated on his enrolment form.

These forms should be arranged in three registers, known as Live, Placed and Dead, according as the men were (a) available for

¹ L.E.C.O. Circ. 2080.

transfer or in process of submission or adjudication ; (b) engaged on the jobs to which they had been transferred ; or (c) adjudicated as not transferable or known to be incompetent.

The Ministry of Munitions would circulate from time to time lists of controlled and Government establishments to which priority should be given in offering Volunteers. Other things being equal, a Volunteer should be transferred from a shorter rather than a greater distance ; but in cases of urgency, under special instructions, Volunteers in certain trades would be moved to particular firms irrespectively of distance.

Normally, an application for Volunteers should not be entertained unless an order had been notified to the Exchange and circulated for at least three days through the National Clearing House. These conditions being satisfied, the Manager of the Exchange would offer, if possible, a Volunteer from his own register ; if not, refer the order to the local Clearing Exchange ; if that proved unsuccessful, the order should be sent to the National Clearing House. In very urgent cases, however, the Divisional Officer might, at his discretion, dispense with this procedure.

Should the Volunteer be accepted, and his present employer not have consented to his release, an opportunity of protest must be afforded. If the employer objected, his protest, together with a report from the Divisional Officer, and if necessary an inspector's report as well, should be forwarded to the Ministry of Munitions for adjudication. No protest would be regarded as valid unless the Volunteer was already engaged on munitions work or on work of vital national importance and his employer had no man available to take his place.

If it was decided to proceed with the transfer, the manager must instruct the Volunteer to move, and send him a railway warrant and a form of claim for subsistence, higher rates or travelling allowance ; he should also inform the workman's present and prospective employers of the transfer, and require the latter to check the claim for allowances and forward it to the Ministry. If any doubt or difficulty arose concerning these allowances, the matter would be referred to the Local Labour Advisory Board for investigation. Returns should be rendered weekly, showing the progress of the work.

III. Obstacles to the Transfer of War Munion Volunteers.

The immediate results of this new procedure were far from encouraging. The Ministry sent down to the Exchanges lists of some 10,000 men who were judged to be fit and available for transfer. But only 753 Munion Volunteers were placed in November and December, notwithstanding the enrolment of 6,515 more men in the course of those months.

On 12 December Mr. Rey wrote to the Divisional Officers expressing regret that so few men were being placed. In reply, it

was urged¹ that the bulk of the men handed over by the Ministry were of poor quality ; many were in trades where the demand was small ; the necessary forms were not available until the latter part of November ; owing to the delay so caused many men were no longer transferable ; some important firms would not accept Munition Volunteers at all ; and many would only take highly skilled men, through fear of general discontent arising out of the special rates and allowances to which Volunteers were entitled. This reluctance to accept Volunteers was intensified by the fact that the most urgent requirements for labour at this time were being met by the release of soldiers from the Colours. Moreover, the procedure for transferring the Volunteers was so complex and cumbersome (one Divisional Officer declared) that no Volunteer could be placed in less than 18 days if his employer objected to his transfer.

The last difficulty was met to some extent by an instruction² issued on 17 January, 1916, that in future adjudication would take place before a Volunteer was submitted to an employer. This involved the addition of a Suspense Register for all enrolments, until the Ministry had settled whether the men were transferable or not. As soon as the adjudicators decided that a man could be moved, he should be placed on the Live Register and transferred as quickly as possible.

At the same time, managers were instructed to clear their Live Registers of all workmen known to be incompetent or otherwise unsuitable for transfer.³ This process was facilitated by the classification of firms according to their efficient employment of labour and the importance of their work, which was carried out in the early months of 1916 by the co-ordinated efforts of Inspectors, Divisional Officers, Managers and Adjudicators. All workmen employed by firms on List I. were removed from the Live Register as well as those who could not be placed owing to lack of skill or demand. The effect of this instruction is seen in the reduction of the Live Register from 14,060 on 29 December, 1915, to averages of 8,557, 1,434 and 1,163 for January, February and March of 1916.⁴

It may be thought that the procedure relating to employers' protests was more complicated and less decisive than the urgency of the national requirements warranted. No doubt many more men than were moved were really available for transfer. But the difficulty of deciding who these men were can scarcely be conceived. The complex organisation of the workshops, the interdependence of industries, the variety of products essential for the prosecution of the War, the fluctuations in demand following on changes of design, new programmes, and the starting of plants capable of immense output, deprived action of the confidence which only knowledge or ignorance affords. However carefully the situation was reviewed, decisions were necessarily taken on grounds which involved much guesswork ; and where facts proved them wrong, the sooner they were reversed

¹ M.W. 60030/4.

³ L.E.C.O. Circ. 2230.

² L.E.C.O. Circ. 2229.

⁴ Appendix V.

the better. Drastic action would have caused either widespread disorganisation or opposition powerful enough to stop its headlong course. A tentative policy was more likely to secure substantial results in the long run.

Accordingly, although the adjudicators reviewed the claims of 1,616 firms between 1 January and 17 March, they approved for transfer only 1,767 men ; and in the following four months the number of firms adjudicated exceeded the number of men passed as transferable.¹

The other great obstacle to the movement of Volunteers arose out of the terms of enrolment. Some firms which had recruited many workmen from other districts during the first year of the War were afraid of the discontent which might be caused in their workshops by the Munion Volunteer's subsistence allowance. This difficulty might have been met earlier than it was by granting subsistence to all skilled men on munitions work who proved that they had moved since the outbreak of war and had a separate household to maintain. Such a concession would have not only made the acceptance of Munion Volunteers easier, but mitigated the grievance which men who had left their homes in the early days of the War felt under the restraint of Section 7 of the Munitions of War Act, especially when they contrasted their treatment with that of the Munion Volunteer.

But the most formidable difficulty was the guarantee to the Volunteer of his rate at the time of enrolment, if that happened to be higher than the rate of the district to which he was transferred. This pledge was no doubt given on the principle that no Volunteer should suffer loss by his transfer to another shop. But it is not likely that it would have been given without material qualification if the anomalies and the administrative work which it involved had been realised. The most serious anomaly arose where a man was transferred from piece-work to time-work, and the average hourly earning in his previous employment was taken as his time-rate. This case was not uncommon, though such transfers were avoided if possible. Many tool-setters, for example, for whom the demand was urgent, were recruited from capstan hands, used to setting up their own machines. These men had not infrequently made big earnings on piece-work, and consequently became entitled on transfer to a time-rate much higher than that of the other tool-setters in the shop. Again, the Munion Volunteer was often, for a time at least, relatively incompetent, though entitled to a higher rate, since he was drawn in from some other industry. Thus a tool-maker from the pen, button or jewellery trade might have much to learn in a munition shop, although he was guaranteed a higher rate than his fellow-workmen, who must help him out of his difficulties. In other cases the Ministry adopted a compromise which satisfied nobody. Suppose a Volunteer was moved from a district with a high weekly rate for a short week of 47 hours to another district with a lower rate for 53 hours. He would receive the higher rate for the longer week ; his fellows objected to the higher

¹ Appendix V.

rate, while he complained that he was required to work six hours for nothing. Again, it was decided that a Volunteer should be paid for night shifts and overtime on the basis of the rate to which he was entitled for the ordinary day shifts, but subject to the proportionate increase for night shifts and overtime prevailing in the district to which he was transferred. Suppose a Volunteer was transferred from a district where the day rate was 1s. an hour, with night shift at time and a half, to an establishment where the night shift was paid time and a quarter on a day rate of 9d. an hour. His new rate for night shifts would be time and a quarter on the basis of his previous day rate of 1s. an hour. He would thus earn less than he would have earned at home for the same amount of work though considerably more than the men among whom he was working.

These examples illustrate the numerous difficulties which arose out of the terms of enrolment, and limited the value of the scheme. For many important firms would not accept Muniton Volunteers at all during the first year of the Ministry's work ; and others would only take men who were not entitled to a rate higher than that which obtained in their own workshops. Others, again, though almost wholly engaged on munitions work, were unable to sign the declaration, stating that they had no men on other work suitable for the job for which labour was required.¹ For one or other of these reasons half the firms on the Priority List were unwilling or unable to accept Muniton Volunteers. Consequently, even if a Volunteer had considerable skill, the Manager of the Exchange often had great difficulty in placing him. In June, 1916, one Divisional Officer stated² that some 600 submissions had proved necessary in order to place 68 men, and another³ that 59 men had been transferred after being offered for 399 vacancies. In view of these obstacles and delays, it would not be strange if some Managers gave up too soon the hope of placing Volunteers who might have made useful workmen on munitions, and others did not follow the numerous instructions of the Ministry as carefully as they ought.⁴

At the same time, the scheme entailed a vast amount of departmental work, since the Ministry was bound to make up the difference between the guaranteed wage and that which would have been ordinarily payable. The Labour Advisory Boards afforded considerable assistance in investigating the facts involved in these assessments, as well as doubtful claims to subsistence allowance. But even this assistance had its drawback. For the process was slow, especially when the Boards met at intervals of not less than a fortnight and wished to discuss the case. And delay in settling such questions, however excusable, did not make the Ministry more popular, even where it inflicted no real hardship on the man.⁵

¹ M.W. 68847.

⁴ M.W. 126018.

² M.W. 117631.

⁵ M.W. 117631.

³ M.W. 124252.

IV. Re-enrolment.

In December, 1915, the problem of re-enrolment became urgent, since the term of the original contract was drawing to an end for the men placed in the early days of July, many of whom appeared far from happy in the work to which they had been transferred. A suggestion that employers should refuse leaving certificates to those who declined to re-enrol was properly dismissed.¹ At the end of the month invitations² were sent out inviting those whose contracts were expiring and who were still working where the Ministry had placed them to re-enrol for the duration of the War. The answers revealed a dissatisfaction deeper and more widely spread than had been suspected, especially among the Volunteers working in some of the principal Armament establishments.³

The main cause of discontent was the discomfort entailed in the transfer of men to places where the housing, food and climate were worse than they had grown used to at home. Those suffered most who went from the South of England or the Midlands to the North-East Coast or the Clyde. The inclemency of the weather, the overcrowding, and the indifferent cooking in such lodgings as were obtainable, aggravated any weakness of health or temper that might have developed in men already worn by long hours of labour and irritated by the petty annoyances of their fellows, none too considerate by nature and jealous of the special terms to which Mmunition Volunteers were entitled. The situation was not improved by the recent tightening of the conditions under which subsistence allowance was payable, or by the decision that night shift and overtime should be paid at the rate customary in the district to which the Volunteer had been transferred.

At the Coventry Ordnance Works, Scotstoun, a grave dislocation of work was threatened.⁴ The Ministry had sent 276 Volunteers to this establishment to accelerate the completion of a battleship and work on heavy gun mountings. Of these it was reported on 14 February, 1916, that only 52 had re-enrolled; the 72 men working on the battleship would not enrol again beyond the time necessary to finish the ship; 120 had already left, and the remaining 32 would probably follow their example.

Fortunately, this case was exceptional. Many men were induced to resist their first inclination by an appeal from the Ministry to their patriotism. Others were reconciled to their discomforts by a holiday and a free railway pass to their homes and back on the completion of six months' service, and the promise of a return ticket at single fare every three months, if the firm with whom they were placed was willing to grant them leave.⁵ If a man showed good reason for transference to work nearer home, the Ministry endeavoured to bring this about if possible. In consequence of these appeals and concessions, by the

¹ M.W. 14163/3, 66928.

⁴ C.E. 345/23. M.W. 40407, 48899, 12970/6.

² W.M.V. 41.

⁵ M.W. 14163/14. L.E.C.O. Circ. 2273.

³ M.W. 14163/14.

end of June, 1916, 5,679 of the 7,382 men invited to enrol again had accepted the invitation. Of these the great majority placed their services at the disposal of the Ministry for the duration of the War, but some refused to bind themselves for more than six months at a time.

It is not possible to state accurately how many Munition Volunteers were sent to establishments beyond daily travelling distance from their homes. But the examination of 1,200 cases showed that 75 per cent. of the Volunteers transferred were married men and 25 per cent. unmarried; of the former 89 per cent. drew subsistence allowance, and of the latter 73 per cent.—a larger proportion than might have been anticipated. But since many unmarried men, though transferred to other districts, were not entitled to this allowance, it appears from this sample that nearly 90 per cent. of the Munition Volunteers were moved to districts other than those in which they were employed at the time of enrolment.¹ That a large proportion of these were transferred a considerable distance is clear from the fact that of 4,329 Volunteers re-enrolled by the end of March, 1916, more than 1,500 expressed the desire to be moved nearer home.

V. Statistics of Enrolment and Transfer, November, 1915, to July, 1916.

Complete figures are not available of the Volunteers enrolled by the Labour Exchanges between November, 1915, and July, 1916. But the average of the six months for which figures are accessible is 2,250. The highest enrolments took place in December, 1915, and in May, 1916. The former were mainly due to the canvassing of men who stated on their National Registration forms that they were not engaged on war work in August, 1915. The latter resulted from the operation of the first Military Service Act in conjunction with the abolition on 1 May of the "stars" by which skilled men in the munition trades, whether employed on munitions or not, had hitherto been protected from enlistment.

According to figures provided by the Labour Exchanges for the period from November, 1915, to March, 1916, 34 per cent. of the enrolments which took place during those months resulted from the use of the National Register, eight per cent. from dilution, and the remainder were spontaneous.² It may be doubted whether the proportion of men who enrolled in consequence of dilution was as low as is represented, but in any case it is not open to doubt that many of the most useful men enrolled in the early months of 1916 were obtained in this way.

¹ There is reason to think that the proportion indicated by this sample is too high. It may be noted that of the sums paid by the Ministry to firms in respect of Munition Volunteers employed by them between August, 1915, and July, 1916, 82·2 per cent. was paid in respect of subsistence allowances, 10·5 per cent. in respect of fares and travelling time, 7·3 per cent. in respect of differences in rates of wages. See Appendix VII.

² M.W. 98085.

The use of the National Registration forms apparently yielded little of value and caused some confusion.¹ Men were invited to enrol though engaged on work of vital national importance, as, for example, the skilled engineers employed at collieries.² And matters were made worse by a circular issued on 13 December, which stated that men might be enrolled even though it was known that they were engaged on war work.³ As a result men were invited to enrol though employed by important firms engaged entirely in the manufacture of munitions, who felt not unjustly annoyed by receiving elaborate forms of protest to fill up in order to prevent their men being taken from them.⁴ This instruction was rescinded on 19 January, 1916.⁵

Altogether some 3,000 enrolments are said to have been obtained in consequence of these invitations ; but it is doubtful whether many of the men were ever moved. The cost in effort may be inferred from the statement of one Divisional Officer, who wrote that one of his Exchanges issued 1,000 invitations but received only half a dozen favourable replies ; another issued 300, in answer to which 24 men offered to enrol, but only two were found suitable for transfer.⁶

The disproportion between the labour expended and the results attained proved the ineffectiveness of registration as a means of adjusting so vast, complex and delicate an organisation as industrial labour to novel conditions. Even if the ordinary workman was capable of stating precisely the rôle which he was playing in the economy of industry, no general form could be devised which would elicit such information. The facts which a census can record may be useful enough for some other purposes, but they throw no light on the question whether an individual should or should not in the national interest be transferred from one industry or workshop to another.

The average number of Volunteers placed weekly by the Labour Exchanges between 1 November, 1915, and 27 July, 1916, was 218. In January there was a sharp rise to 237 as compared with the weekly average of 89 for December ; and again in May a new level was reached at 337, an increase of 107 weekly above the average for April.⁷ On 30 June, 1916, 12,234 Mmunition Volunteers were still at work in the establishments to which the Ministry had transferred them.

VI. The Value of the W.M.V. Scheme.

This number, barely one per cent. of the men employed in Government and Controlled Establishments, fell far below the most modest expectations formed at the inauguration of the scheme. But it would not be fair to judge of the value of the War Mmunition Volunteers in this way. That must be decided by a consideration of the part performed by them in the factories to which they were assigned, and the importance of the work done in those factories. Unfortunately, no analysis

¹ M.W. 68301.

⁵ L.E.C.O. Circ. 2240.

² M.W. 14163/6.

⁶ M.W. 117631.

³ M.W. 68847. L.E.C.O. Circ. 2164.

⁷ Appendix V.

⁴ M.W. 14163/11.

of the transfers was made at the time on the lines necessary for this investigation ; and it is not possible now to give exact figures showing the distribution of the Volunteers at different periods of the year under review either by trades or by firms.

An examination, however, of the trades of 2,080 Munition Volunteers transferred during the first year of the scheme has yielded the following results :—

<i>Occupation No.</i>	<i>Description.</i>	<i>Number.</i>	<i>Percentage.</i>
031	Platers, Riveters	49	2·4
032	Shipwrights	11	·5
038	Moulders	25	1·2
042	Smiths	27	1·3
044	Fitters, Turners, etc. '	1,555	74·7
045	Brass Finishers	20	·9
046	Coppersmiths	26	1·2
047	Planers, Millers and other Skilled Machinists	189	9·1
049	Sheet Metal Workers	71	3·4
051	Electricians, Wiremen	31	1·5
	Others	76	3·8
		2,080	100

This sample is probably fairly representative of the men who were transferred during the first year of the Ministry's work, though the proportion of skilled shipyard workmen may perhaps be unduly low.

The most remarkable feature is the very high proportion of fitters, turners and skilled machinists. This was partly due to the intense demand for men to make and erect the machine tools for the new gun and ammunition factories, to manufacture gauges, jigs and fixtures for them, and to set up the machines for, and train, the unskilled operators. It was also due in part to the fact that only in the general engineering shops was there any considerable reserve of skilled men employed on commercial or relatively unimportant work. The basic metal and chemical industries and the shipyards, after the vital importance of merchant shipbuilding was recognised at the end of 1915, were all so heavily engaged on Government work that the transfer of their skilled men to other works was out of the question. These industries obtained a number of Munition Volunteers as fitters, but there was only one reservoir from which men skilled in metal and chemical manufacture and in shipbuilding could be drawn, namely, the Army.

It is probable that many firms were enabled to widen the bottle neck of their production, to start night shifts, and to employ numbers of unskilled men and women by the supply of a few Munition Volunteers at the critical moment. But the delay in drawing up a Priority List for labour and the subsequent expansion of that List involved some dissipation of the potential energy of a mobile body of skilled men at the disposal of the Ministry. This was corrected by the decision

of the Ministry on 18 April, 1916, to give "super-priority" to the National Projectile Factories and certain other establishments engaged in the production of heavy shell. The full effect of this concentration does not become apparent in the period under review. But it is hardly doubtful that some of the Projectile Factories could not have obtained the skilled men essential for their tool rooms and for setting up their machines without the aid of the Mmunition Volunteers. In the autumn of 1916 more than one quarter of the skilled men employed at Dudley, Lancaster, Leeds, Renfrew and Templeborough were Mmunition Volunteers, and the number at Nottingham was considerable.

In 1915 large numbers of Volunteers were transferred to the Royal Factories, to Messrs. Armstrong Whitworth, Vickers, Beardmore and the Coventry Ordnance Works, and to some of the chief Naval Construction and Marine Engineering Works on the North-East Coast and the Clyde. Messrs. Vickers alone employed at their various factories more than 1,000 Mmunition Volunteers in June, 1916, including 336 at Crayford and 258 at Erith. The principal value of the scheme perhaps lay in the fact that it facilitated the expansion of important establishments in districts where there was no reserve of skilled mechanics at hand. Firms such as Messrs. Ruston, Proctor, and Clayton and Shuttleworth at Lincoln, Brotherhood and Perkins at Peterborough, Allen at Bedford, Austin Motor Co. at Northfield, J. S. White at Cowes, and Thornycroft at Southampton obtained through the Mmunition Volunteer scheme large numbers of mechanics who could not possibly have been secured through the ordinary channels of supply.¹

Although, therefore, the records available are very incomplete, there can be no doubt that both the production of big guns and howitzers and heavy shell and naval construction were materially accelerated during the first year of the Ministry's work by the assistance of the Mmunition Volunteers.

In another way the enrolment of the Mmunition Volunteers contributed in a high degree to augment the output of Munitions. The only effective lever which the Ministry could use in enforcing the policy of dilution on a firm which hesitated to adopt it through conservative preconceptions, fear of labour troubles or any other reason, was the threat to remove their skilled men as Mmunition Volunteers. This threat was not difficult to carry out, since most firms employed men who had enrolled in the midsummer of 1915; and even if this had not happened, it was not difficult for the Ministry to persuade men to enrol, inasmuch as the scheme had the support of the trade unions. Consequently the 120,000 Volunteers who had not been transferred were by no means a negligible force. The fact that they remained at the disposal of the Ministry made them a preponderant factor in the policy of reorganising the workshops without involving the nation in any expense beyond that of enrolment.

The question remains whether the scheme might not have been made more effective than it was. There can be little doubt that the men would have been much easier to place, and the Department would

¹ See Appendix VI.

have been saved an immense amount of work, if the Volunteers had been originally enrolled on the same terms as the soldiers released from the Colours, that is to say, guaranteed the rate of wages customary in the district to which they were transferred, together with a separation allowance varying according to the extent and nature of their family obligations. But the hands of the Ministry were perhaps tied by the terms of enrolment for the King's Squad. In any case it is almost certain that the terms could not have been altered after the great enrolment in the midsummer of 1915 had taken place. Except by individual agreement the contracts made between the Ministry and the Volunteers could not have been changed. And the less favourable terms would certainly have discouraged fresh enrolments for a considerable time. But it seems not unlikely that, if the original terms had been as suggested, the number enrolled would not have been substantially less than it was, since the guarantee of the district rate would have harmonised with the common practice of the trade unions.

It is less certain what improvements could have been introduced at this time into the method of allocation. There can be no doubt that the complexity of the procedure and the number of instructions issued from the Ministry to the Exchange Managers through their Divisional Officers impaired the efficiency of the machinery on which supply depended. Men adjudicated for transfer were not placed on the Live Register and transferred as rapidly as they should have been. Nor were they always offered to the firms most in need of them.¹ It can hardly be doubted that a much shorter Priority List, at any rate for men of the highest qualifications, would have secured better results. Moreover, the instructions issued from the Central Office to the Labour Exchanges were so complex and elaborate that they tended to defeat the purpose for which they were sent. To carry all of them out required a clearness of thought, a retentiveness of memory and a perfection of system which would hardly be expected of ordinary Managers, harassed as they were by the daily difficulties and annoyances of administration. Intricacy of procedure and the consideration of many variable conditions were indeed inseparable from any such scheme for the transfer of labour, as must be abundantly clear from what has already been said. But it is difficult to resist the suggestion that simpler and more effective methods might have been devised if less thought had been given to the elaboration of a watertight scheme.

¹ M.W. 126018.

CHAPTER III.

RELEASE FROM THE COLOURS.

I. Allocation of the Men Released under the United Kingdom Bulk Scheme.

The measures taken in the autumn of 1915 to discover and enrol for munitions work the skilled men in the Army who had not yet been sent overseas have been described in an earlier chapter.¹ These measures yielded 44,624 soldiers who appeared to have the requisite skill and experience.²

The allocation of these men proved a slow and difficult process. In order to hold the balance between the War Office and the Ministry and to co-ordinate the sections of the Labour Supply Department, which showed the centrifugal tendencies of an improvised organisation, Sir George Younger was appointed on 15 October with executive powers to supervise this work. He had to assist him a committee representing the sections responsible for the statistics of demand, adjudication, allocation and releases.³

Since the War Office had promised that the men selected as suitable for munitions work should not be sent abroad unless the Ministry found that their services were not required, the need for prompt decision was fully recognised. But time was necessary for checking and indexing the enrolment forms and especially for the difficult work of adjudicating from the information they contained on the skill and experience of each man enrolled and the probable demand for labour of his type.

The expectations which a superficial consideration of the numbers selected might have encouraged were quickly disappointed. The outstanding demand for 40,000 men in the munitions trades was indeed apparently balanced by the soldiers available. But, as their trades were analysed, it became clear that there was a wide disparity between demand and supply. The men were classified under 98 heads. In half of these the supply appeared to exceed the demand. In many

¹ See Vol. IV., Part I., Chap. II., Sect. VI.

² 40,132 men were selected by 15 November, 1915, but 4,492 were subsequently added by the inclusion of men who were absent from their units at the time of investigation or were willing to enrol under the Bulk Scheme, when the work of their employers did not justify their release on direct application. See Vol. IV., Part I., Chap. II., Sect. III.

³ M.W. 57203.

of the rest the demand far outran the supply, and in particular the demand for fitters and turners, nearly half of the whole, was three times as great as the number enrolled.¹ But even these figures were misleading. For many of the heads of classification covered not only men of very different degrees of skill, but also highly specialised types of skill which were not interchangeable. Consequently, a large apparent supply might go but a little way to meet the demand. The difficulty was aggravated by the reluctance of employers to take men who did not exactly satisfy their needs, and by the unwillingness of their men to work beside soldiers who could not produce any credentials of having served an apprenticeship.²

It soon became evident that a large proportion of the soldiers enrolled did not possess the special skill most in demand. By 21 October the inspection of 9,670 enrolment forms showed only 1,128 men likely to be placed with ease; and further examination did not yield more favourable results. On 17 November, when 31,500 forms had been examined, it was estimated that not more than one-eighth of the men were highly skilled and urgently wanted; a quarter were either of such indifferent ability or belonged to trades so little in demand that they should not be withdrawn from the Army even if they could be placed; of the remainder about half would probably be accepted.³

This estimate tended to undervalue the men available for release. If the magnitude of the task in front of the iron, steel and other basic industries had been realised at this time, the fruits of the scheme might have been more fully gathered. It may be doubted, for example, whether 898 ironstone miners would have been returned to the Army as useless.⁴

On the other hand, the difficulty anticipated in obtaining sufficient low-skilled labour to man the machines in the new projectile and other National Factories was over-estimated. The extent to which women or men of poor physique could be used in the production of heavy shell was not foreseen. Dr. Addison gave instructions that every man should be retained who was at all likely to be useful at the moment or when the demands of the National Factories would become pressing.⁵

¹ M.W. 63424/2. See Appendix VIII.

² A strike was threatened at Elswick in August, 1915, unless a released soldier was withdrawn from fitting work. The district delegate of the A.S.E. maintained that if the shop-stewards could prove that a man had not served his time and had no certificate or warranty that he was capable of doing his work he should be removed. In September, 1915, there was a strike involving 1,700 men at Messrs. Thornycroft's, Southampton, for a similar reason. The workmen were annoyed because men who could not satisfy their criteria of skill were released while members of their own unions were retained in the Army. But the reason for this was that the latter had already gone overseas. M.W. 37775, 48934, 50508, 56030.

³ M.W. 63424/2.

⁴ M.W. 63424/58.

⁵ M.W. 62583.

An attempt therefore was made to obtain from the departments responsible for them estimates of the demands for labour which could not be met locally, and the dates at which these prospective demands were expected to become acute.¹ This attempt met with little success. Some of the reports were vague; in others the demands were probably exaggerated; and further, the majority of the factories were so far from completion that it was out of the question to reserve men for them.

Consequently, the Allocation Section had nothing substantial to work upon except the Live Register of demand. In order to remove doubts concerning the accuracy of the demands registered and to prevent the offer of soldiers until all other sources of supply had been exhausted, important firms engaged on munitions of war were invited on 19 November to renew their demands through the Labour Exchanges.²

In the meantime the Army Council had informed the Ministry on 26 October that the continued presence of enrolled soldiers in their units was causing a restlessness which seriously interfered with their training. A speedy decision was important. In particular, Divisions of the Fourth New Army would soon begin to leave the country, and the nearer the time for their departure approached, the more difficult would it be to agree to the withdrawal of numbers of trained men.³

The Ministry replied⁴ on 29 October, pointing out that owing to the arrangements made by the War Office the investigations could not begin before 23 September, and the collation and tabulation of the information on the nominal rolls and the enrolment forms involved much labour and time. The Minister assured the Army Council that this work was receiving urgent attention, but also reminded them that it was proceeding on the distinct understanding that all men whose names had not been deleted from the rolls by the skilled investigators were to be retained in the United Kingdom at the disposal of the Ministry.

A special effort was made to meet the War Office. On 27 October Sir G. Younger decided that non-commissioned officers of the Fourth New Army, with the exception of highly skilled men in a few cardinal trades, should not be withdrawn from the Colours. By 6 November the forms of the men enrolled from eight Divisions and two Mounted Brigades were reviewed, and only those men were retained who would almost certainly be required. By 26 November the preliminary excision was practically complete, the Allocation section having decided that 10,596 of the men enrolled (nearly a quarter of the whole number) need not be released. Ultimately the Ministry revoked its claim to 18,256 of the men originally selected.

The placing of the soldiers was more laborious than was anticipated. At first the Ministry submitted particulars of the men directly to

¹ M.W. 63424/58.

³ 19/Gen. No./5449 (A.G. 1). R.C. 05787.

² L.E.C.O. Circ. 2128.

⁴ M.W. 37795.

employers by post. Then on 5 November, to save time, it was decided that though the Ministry must continue to determine to which firms soldiers should be offered, the Labour Exchange manager should submit the particulars of the man and obtain from the firm the declaration that the soldier was necessary for the execution of its war contracts, and the undertaking to fulfil the conditions to which his release was subject.¹ If the man was refused by the firm selected by the Ministry, his form must be returned to the Department for re-submission. This involved serious delay, after the men most eagerly sought for had been placed; and some of the managers did not treat these cases with the urgency which their instructions and the circumstances demanded.² Consequently, on 4 December the Exchanges were informed³ that in future particulars would be sent to them in bulk, and the selection of suitable men for submission to firms wholly engaged on munitions work would be left to the manager, subject to special directions from the Ministry concerning priority and in particular to a Black List of firms to whom soldiers must not be offered. The forms must not be retained by the Exchange for more than four days; after that soldiers not accepted would be offered elsewhere.

It was unfortunate that the Priority List and List I. were not available for the guidance of the Exchanges until the great majority of the soldiers had been placed.⁴ But the stringent terms of the employer's declaration, combined with the manager's local knowledge, prevented the offer of soldiers to firms which had no title to receive them.

The Allocation section at first anticipated that it would be able to submit as many as 1,500 men daily. But the submission of even 1,000 a day made it very difficult to deal with the Live Registers of men and orders owing to the number of outstanding submissions. The daily average for the third week of November was 1,086; it then fell gradually to 871 for December, 595 for January, 501 for February, 327 for March, and 156 for April. The men most in demand were offered first, as is evident from the fact that 70 per cent. of the men accepted in November were taken by the firm to which they were first offered, as compared with 23 per cent. in March, and 3·5 per cent. were accepted in November, after more than three submissions, as compared with 46 per cent. in March. In all, 78,804 submissions were made of the men available for release in bulk, 25,438 being accepted.

Soldiers were on principle submitted for vacancies only in their own trades. But in January, 1916, an exception was made owing to the urgent demand for the rapid extension of the manufacture of solid drawn and lap-welded tubes.⁵ Large numbers of men of strength and endurance were required besides experienced tube workers, 187 of whom had been offered to Messrs. Stewarts and Lloyds on 11 November. Accordingly, Sir G. Younger, with the consent of Sir R. Brade, decided

¹ L.E.C.O. Circ. 2107. Form S.D. 3a.

¹ See p. 11.

² L.E.C.O. Circ. 2150. L.E. 25402/25.

⁵ C.E. 940/4.

³ L.E.C.O. Circ. 2155.

to submit a number of smiths' strikers and drillers, for whom there was little demand at their own trades ; 1,094 in all were offered, of whom 887 were accepted and 674 started work.¹ These men were released only on condition that they should be paid a wage not less than that to which they would be entitled if engaged in their own trade. But for this timely assistance, the output of tubes would have been delayed with serious and far-reaching consequences.

It is not possible to state accurately on what munitions the soldiers released from the Colours were employed, on account of the various and variable nature of the work done by the large firms. But the following figures give some indication of the manner in which the soldiers released between 13 July, 1915, and 20 January, 1916, were distributed at the latter date. Of the 21,278 men who started work in this period, about 6,000 were released on the direct application of their former employers, 2,000 under the first Bulk Scheme, and 13,000 under the second.

Guns and Gun Equipment	3,821
Gun Ammunition	4,474
Machine Guns, Small Arms and Small Arms Ammunition	339
Chemicals and Explosives	1,066
Metal and Tube Manufacturers	730
Aircraft	1,512
Trench Warfare Material	553
Admiralty Work	4,618
Optical and Scientific Instruments	85
Gauges	42
Miscellaneous	3,038
	<hr/>
	21,278

On 11 April, 1916, the Army Council proposed² that the Scheme should be wound up. The fact that men selected in the previous autumn had not yet been placed showed that they were of little value for munitions ; but they were urgently wanted for drafts, and so long as their officers knew that they might be withdrawn at any moment, little interest was naturally taken in training them for military duties.

The Ministry had no objection to this course. The number of men who had not been either placed or renounced was less than 3,000, and this number was rapidly diminishing. On 2 May the Ministry concurred³ in the Army Council's Instruction winding up the scheme, but asked that the 565 men then under submission to employers should be exempted from its action until 1 June.

The results of this scheme up to 31 May, 1916, were as follows⁴ :—

Submissions to Employers	78,804
Soldiers accepted by Employers	25,438
Soldiers started work	19,698
Soldiers accepted but not yet reported at work	1,516
Soldiers accepted but reported by War Office as not available for release	4,224
Soldiers dealt with on direct application	930
Soldiers returned to War Office as not required	18,256

¹ M.W. 63424/58.

³ M.W. 63424/28.

² 19/Gen. No./5449, A.G. 5. M.W. 63424/27.

⁴ M.W. 63424/58.

The number of men whose releases could not be obtained seems large in view of the undertaking given by the War Office that the men should be retained at the disposal of the Ministry ; but the delay in placing many of the soldiers selected makes the figure intelligible.

II. The B.E.F. Bulk Scheme, December, 1915—March, 1916.

After the failure of the Ministry to secure the skilled men in the Third New Army, Mr. Lloyd George informed the Army Council on 24 September, 1915, that he intended to put before them a scheme for the release of the men he required from the Armies in France and Flanders.¹ This scheme soon became urgent owing to the small number of pivotal men obtainable from the Forces at home, in particular tool-makers, tool-setters, universal millers, fitters and turners accustomed to work of high accuracy, coppersmiths and chemical plumbers. Consequently, on 18 October a letter was sent to the War Office, saying the Minister was satisfied that immediate steps should be taken to obtain from the Army abroad all men of the trades just specified.²

The Army Council replied on 25 October that the Ministry's letter had been referred to the Commander-in-Chief in France.³ At the same time they pointed out that the Army needed large numbers of skilled mechanics. It would be uneconomical to denude the Army abroad by releasing artificers, who must be replaced either by competing with the armament firms for tradesmen or by sending out soldiers from England who might otherwise be released for munitions work.⁴

The Ministry proposed to follow the lines of the scheme recently carried out in the Forces at home. Personal investigation was essential if the right men were to be discovered and released. On 20 November Mr. Lloyd George sent to the Prime Minister, who was acting in Lord Kitchener's absence as Secretary of State for War, a memorandum explaining the new scheme, the methods and results of release from the Colours, and the precautions taken against abuse. He urged that steps should be taken immediately to obtain the release of men overseas.⁵

In the meantime, on 29 October, the Adjutant-General of the British Army in the Field, Sir Neville Macready, had issued an urgent order⁶ calling for the names of men in the trades specified by the Ministry. The men were required for special service, and must be efficient tradesmen. When the lists were received, orders would be issued for the personal examination of the men by skilled investigators.

On 1 December Lord Murray saw Sir John French in London, and explained to him the gist of the Ministry's scheme, the importance of which he had urged in a letter the day before. There was a vital

¹ See Vol. IV., Part I., Chap. II., Sect. VI.

⁴ 19/Gen. No./5462, A.G. 1.

² M.W. 56773.

⁵ R.C. 04411.

³ 19/Gen. No./5484, A.G. 1.

⁶ A/1854.

need for certain classes of skilled labour for the manufacture of munitions, and unless it was satisfied the productive capacity of the country could not be realised. All available sources of this labour, both civilian and military, in the United Kingdom had been examined and exhausted. The Army overseas alone remained. Sir John French approved of the scheme and the personnel selected to carry it out. He was prepared to release 2,000 men, unless some emergency arose which rendered their retention necessary. On the following day Mr. Asquith approved the arrangements suggested by the Ministry.¹

Accordingly, on 6 December, General Macready issued an order in pursuance of his minute of 29 October.² A large number of the metal workers called for special service were already being tested in the workshops of the Royal Flying Corps. But in addition to these men, required for service with the Expeditionary Force, 2,000 men of the same trades were needed in England for urgent munitions work. The lists already prepared would be used as a basis on which the work of selection would be carried out. No man who was an artificer in his unit would be taken, unless he was by civil trade a "micrometer turner" or a chemical plumber. No individual unit should for this purpose lose more than 2 per cent. of its established strength, nor should any Army Corps lose more than 1 per cent. A party of skilled investigators would arrive from England on 10 December and visit the three Armies on the three following days. Experience in the United Kingdom had shown that half the men claiming to be skilled were not. Arrangements, therefore, should be made to collect on the days indicated parties of men who had given in their names as tradesmen in the trades specified. Each party should be approximately 2 per cent. of the established strength of the Army Corps; but no unit should contribute more than 4 per cent. of its strength. After the three Armies had been visited, the names of men provisionally selected would be reviewed at Headquarters, and the drain on Armies, Corps, and Units would so far as possible be adjusted in proportion to their existing strength. The First Army was expected to provide 710 men, the Second Army 610 (the Canadian Corps being excluded), and the Third Army 680.

On 9 December Lord Desborough and Major Scott reached St. Omer and discussed the whole plan with the Adjutant-General. The limitations laid down in the Order of 6 December were explained; but it was anticipated that the Ministry would have 15,000 men to select from. The three Armies would be visited on the 12th, 13th and 14th. The examination must be rapid, lest the men should become discontented and their morale be impaired. Although Major Scott did not think that 15,000 men could be examined even orally in three days, he agreed to give the procedure a trial, on the understanding that a thorough test in the workshops would be necessary later.³

Very early on 12 December the Mission started to visit the Armies along the front, and in the course of the next week nearly all the party

¹ R.C. 04411.

² A/1854, copy in R.C. 06770/4.

³ R.C. 06770/1.

came under fire. The results did not meet what they were led to expect. Only 3,961 men were paraded, of whom 851 were provisionally selected for testing in the workshops at Havre. This was not perhaps surprising in view of the limitations prescribed by the Adjutant-General, and of the fact that a large number of the men who had come forward in response to his call of 29 October had already been tested and retained for special service in the Army.

Lord Desborough wrote to General Macready on 20 December stating these results, emphasising the urgency of the demand for these pivotal men to produce guns and shells, and asking for an opportunity to discuss the position and devise a new scheme for getting the men promised. What was required had not apparently been understood, since men were paraded as skilled munition workers who turned out to be cricketers, bedstead-makers, bakers, ironmongers' salesmen, flour-millers, and undertakers.¹

Lord Desborough and Major Scott therefore discussed the question with the Adjutant-General, who agreed to a further investigation on condition that no officer nominated by the Ministry should visit the units. The special investigators would be conducted by regular officers, who would be responsible for discovering the men of the types required. Any man, whatever his rank, might be selected, if he was not an artificer on the establishment of his unit. Suitable men would be enrolled without reference to the strength of their units, but the actual number to be taken would be regulated in such a way that in the event of more men being discovered than were required no unit would be unfairly drawn upon.²

On 19 December the workshop tests began at Havre under the superintendence of Mr. G. N. Barnes, M.P. Of the 851 chosen for testing, 709 passed, the remainder being sent to the Royal Flying Corps as likely to make good artificers though not sufficiently expert for the work of the Ministry. On 4 January, 1916, Mr. Barnes wrote³ to Lord Murray suggesting that the soldiers released should be used as far as possible in directing other labour. "We know that private firms are eager to get hold of them, but these firms should (we think) be put upon their mettle to spread out the mechanics at present in their employ as widely as possible, so as to leave the new men for the new workshops. . . . I may add that the scrutiny here has been fairly exhaustive, and you may rely upon all the men now being sent home being of a high standard of skill, so that they might be used for the guidance and supervision of the less skilled labour—even the young men."

On 3 January, 1916, the second investigation began. Each Army was visited by a Military Officer and two investigators. The examination of the First and Second Armies was completed by the end of January, 4,481 men having been paraded, of whom 390 were selected for testing. But the inquiry into the Third Army proceeded

¹ R.C. 06770/1. ² R.C. 06770/4.A.1854 dated 23 Dec., 1915. ³ R.C. 06770/2.

slowly, though it was very thorough. In order to finish the work and keep the workshops at Havre busy, Major Scott suggested on 8 February that he or another officer should go with two other investigators and help to complete the examination. The Adjutant-General, however, would not hear of this. On 12 February, therefore, operations at Havre were suspended until the investigation of the Third Army was nearer completion.

On 17 March the workshop tests at Havre were resumed. 3,528 men in the Third Army had been interviewed, of whom 799 were selected for testing. For a fortnight all went well. 436 men were paraded, of whom 367 passed. Then the parades became very small and irregular, although 243 men remained to be tested. At length correspondence with Headquarters showed that in their view the limit of 2,000 had already been reached, for they had included all men released on direct applications¹ since the Mission went out in addition to the men selected by the Mission.² The limit of 2,000 had never been understood in this way by the Ministry; but owing to the fact that the final stages in the negotiations had been carried through personally, it had not been specified in writing to whom this limit applied.

In all 1,732 men passed the tests out of 1,996 selected by the investigators.³ But of these only 1,543 were placed at the disposal of the Ministry.⁴ The trades of the men who passed the tests were as follows⁵ :—

Fitters	690
Turners	501
Universal Millers	127
Tool-makers	22
Tool-setters	27
Leadburners	63
Coppersmiths	59
Caulkers	114
Angle Iron Smiths	9
Shipwrights	20
Riveters	56
Tube Drawers	39
Scientific Instrument Makers	4
Acetylene Welder	1

¹ These were men in barred units for whose return their employers had applied, and who were recommended for release by the Ministry in accordance with the terms of Lord Kitchener's letter of 11 August, 1915. See Vol. IV., Part I., Chap. II., Sect. IV.

² M.W. 63424/29. 19/Gen. No. 5484/A.G. 5.

³ R.C. 06770/2.

⁴ Of the remainder 70 men belonging to the Mechanical Transport Section were recalled by the War Office, 38 were refused release because the limit of 2,000 had been reached, and no arrangement proved feasible for the release of 81 Canadians who had been provisionally selected. R.C. 06770/3, 06521.

⁵ The list of trades was expanded to include skilled shipyard workmen, urgently required by the Admiralty, in accordance with a recommendation made by Sir G. Younger's Committee on 6 December, 1915.

The greatest care was expended on the allocation of these men, who were eagerly accepted. The majority of them were placed with the firms engaged on heavy guns and howitzers or the machine tools required for their manufacture, which were seriously behindhand.¹

III. Wages, Allowances and Discipline.

Every soldier released from the Colours was guaranteed his Army emoluments.² These fell into three parts—(a) his Army pay of 1s. a day and upwards, according to his rank and the branch of the Service to which he belonged; (b) a consolidated allowance of 2s. a day in lieu of lodging and rations; and (c), if he had dependants, a separation allowance (less the part allotted by himself out of his pay). In addition, he was on release “completed with clothing and necessaries”; his uniform was replaced when unfit for further wear, and he received a kit allowance of 2d. a day, paid quarterly by the Regimental Paymaster.³

By the Royal Warrant of 11 May, 1915,⁴ if the soldier's civil earnings fell below his Army pay and the consolidated allowance, the difference, which his employer must make up, was recoverable from Army funds. If the soldier was unavoidably separated from his home, the separation allowance was paid directly to his dependants by the military authorities, as a clear addition to all his other earnings or emoluments. If, however, he lived at home, he was guaranteed besides his Army pay a family allowance in lieu of the consolidated and separation allowances, his employer making his earnings, if necessary, up to this sum and recovering the difference from the War Office. The Officer in charge of Records informed the employer of the rate at which the soldier's emoluments were assessed.

If the soldier was an indentured apprentice, this guarantee involved a heavy charge on the public funds. The Army Council drew the attention of the Ministry to this on 7 August, 1915, and suggested that requests for release should be limited to men fully skilled or in receipt of good wages.⁵ The Ministry replied on 13 August that releases of apprentices had only been effected or recommended when the term of indenture had almost run out, or the department was satisfied that the demand of the employer could not otherwise be met.⁶

In the course of the next four months the War Office brought to the notice of the Ministry a number of cases in which apprentices who had been released from the Colours were receiving wages ranging from 5s. a week to 14s., and consequently involving a charge upon the public funds varying between 16s. and 7s. weekly.⁷ It was felt that this was unreasonable, if the soldier was really of sufficient value to justify his release from the Colours.

¹ M.W. 63424/12.

⁵ R.C. 03844. 30/Infantry/2279 F.2.

² Contracts/1268 F.2, 22 May, 1915.

⁶ M.W. 32097.

³ *Ibid.*, 29 June, 1915.

⁷ 30/Gen. No./5253 F.5. 30/Misc./226 F.5. 30/Ft. Gds/63 F.5.

⁴ See Appendix IX.

The apprentice also had a grievance, inasmuch as he was not paid for working overtime or on Sundays, since any addition made to his wage on this account only reduced the amount his employer was entitled to recover from the War Office, unless the total sum of his earnings exceeded his Army pay and allowances.¹ This grievance was illogically, though not unnaturally, aggravated by the fact that the indenture of apprenticeship normally precluded working overtime.

The question became pressing in November, 1915, because more than 3,000 apprentices were made available for release under the Bulk Scheme. The department seriously considered whether it ought not to cancel its claim to them; but careful examination of their qualifications proved that many of them were most valuable, since they had obtained considerable skill in trades in urgent demand.² The Central Munitions Labour Supply Committee were consulted. On 29 November they replied that, in their opinion, apprentices released from the Colours, whether indentured or not, were entitled to receive a sum not less than their Army Pay and allowances from their employers without charge to the State. Such men ought not to be regarded as apprentices, inasmuch as they were soldiers and were released from service with the Colours only for special employment on munitions of war. Consequently, indentured apprentices employed in the same shop had no legitimate ground of complaint if they only received the wages set out in their indentures. The National Advisory Committee concurred in this opinion some days later.

Accordingly, on 22 December, the Ministry informed³ employers that after 25 December they would be responsible for making up the wages of an apprentice to a sum equal to his Army pay and allowances without charge to Army funds; and on 9 January, 1916, the Army Council issued instructions to the same effect.⁴ The employers generally accepted the decision without demur, though a few had the audacity to urge that these soldiers were not worth more to them than an apprentice's wage. Owing, however, to questions concerning the incidence of the liability, where a soldier's earnings were reduced by sickness, public holidays, or other causes beyond his control, to a sum less than his Army pay and allowances, the Army Council Instruction of 9 January was cancelled on the 25th.⁵

On 11 February, 1916, the Army Council issued a new instruction on the emoluments of soldiers released for munitions work which superseded all previous instructions on this subject.⁶ After 11 March the employer must pay every soldier a minimum wage equal to his Army pay and the consolidated allowance of 2s. a day. If the soldier had dependants and was unavoidably separated from his home the War Office would continue to pay the separation allowance directly to his dependants. But if he was living at home with his dependants

¹ 30/Home/26 F. 5. 9/Infantry/9981, F. 2. ⁴ A.C.I. 60, 1916.

² R.C. 03844.

⁵ A.C.I. 206, 1916.

³ Circular R.C. 85.

⁶ A.C.I. 344, 1916. Circular R.C. 85 B.

the employer must make up his wages to a sum equal to his Army pay and family allowance, recovering from public funds the difference between this sum and the man's civil earnings.

All soldiers during their civil employment must be insured under the provisions of the National Insurance Act, applicable to civilians, at the ordinary rates. No medical attendance would be provided from Army sources. If through sickness or disablement a soldier's civil earnings (including sick pay and any benefits to which he might be entitled under the National Insurance Act or the Workmen's Compensation Act) fell below his military emoluments, his employer must make up the deficiency, on the soldier's producing a medical certificate, and recover it from Army funds. If, in spite of the certificate, the employer suspected malingering, or if the soldier was absent through sickness for four weeks, or was subject to chronic illness, the employer should communicate with the medical authorities at Headquarters, who would arrange for the examination of the man without delay by an Officer of the R.A.M.C.¹

If the soldier was absent from work during any recognised trade holiday, the employer must make up his pay for the week to the amount of his military emoluments, and recover the difference from the War Office.²

But in so far as the soldier's civil earnings fell below his Army pay and allowances through his own default, the employer should not make up the deficiency, nor could he recover it from Army funds.

Soldiers employed in insured trades must be insured under Part II. of the National Insurance Act against unemployment.

Elaborate arrangements were also made in respect of compensation for injury due under the Workmen's Compensation Act, the Employer's Liability Act or at Common Law.³ Their main objects were to secure the rights of the soldier and his dependants under Army Regulations, and to safeguard the State in the event of the employers commuting weekly payments for a lump sum.

The kit allowance was raised from 2d. to 2½d. a day.⁴

These provisions worked well. The soldier was treated not ungenerously, while the State was safeguarded against the misuse of its pledges. Complaints were made from time to time that an employer was demanding unreasonable services or hours of labour from soldiers by force of their liability to recall to the Colours. But the department was able to check these tendencies effectively by its power to transfer the soldier to another factory. Moreover, the men were not unwilling to return to the Colours, particularly since they would probably return as artificers or members of a technical corps. Owing to the rise in prices and the cost of lodgings in the principal munition areas, the wage guaranteed to apprentices was found insufficient if they were living away from home, and the employer was pressed to make a

¹ A.C.I. 382, 1916.

³ A.C.I. 851 and 1457.

² A.C.I. 344, 1916.

⁴ A.C.I. 344, 1916.

suitable advance. His desire to retain a valuable man, if not the recognition that the soldier was worth more than 21s. a week, as a rule secured a ready acquiescence.

On 2 October, 1915, the Ministry inquired¹ how offences committed by soldiers employed in a munitions factory should be dealt with. On 20 October the Army Council replied² that, in their opinion, soldiers so employed should be treated, so far as possible, in exactly the same way as civilians. "When, however, a soldier is actually arrested by the military authorities for a military offence affecting the good order and military discipline of the Army, such as drunkenness in uniform or insubordination, then it is considered that he should be punishable by a military tribunal. This liability to punishment for a military offence will not apply to misconduct of any description committed whilst the soldier is actually at work in the factory or workshop engaged on munitions work. Whilst so employed he will be subject to the same disciplinary measures as are in force for civilian workmen."

IV. The Claim of the War Office to Adjudicate on the Relative Urgency of Munitions Work.

In the spring of 1916 the War Office adopted a very critical attitude towards Release from the Colours. Lord Derby's scheme and the first Military Service Act were bringing in much smaller numbers of men than had been anticipated. And with the great offensive movement of the summer before them, the military authorities in France were most reluctant to part with any of their trained soldiers. At the same time, although dilution in conjunction with the substantial numbers of skilled mechanics released from the Army had set the manufacture of guns and ammunition on an adequate basis, the prospective shortage of steel and the urgency of naval and mercantile construction increased the demand for labour, which only the Army could supply.

On 25 April Sir Neville Macready, who had returned from France and become Adjutant-General, wrote to Sir H. Llewellyn Smith asking whether the Ministry's procedure for releasing men from the Colours could not be improved.³ Major Scott therefore prepared a memorandum on the subject, and Sir George Younger was asked to investigate and report on it. On 8 May he reported as follows⁴ :—

"From reading this memorandum, I came to the conclusion that in theory the procedure of the section was good, but I felt that owing to the number and complexity of the unit and other indices a certain percentage of mistakes would be bound to occur, seeing that the clerical and index staff was composed of girls without previous training in such work. I was pleasantly surprised, however, to find that the number of such mistakes

¹ M.W. 22357.

³ M.W. 63424/27.

² 79/7761 A.G. 3.

⁴ M.W. 63424/32. R.C. 012033.

was negligible, and that in fact the procedure as a whole worked as well and as clearly as it read. . . . The procedure of R.C. Section, both in theory and in practice, is sound and accurate."

In the meantime the War Office claimed to decide whether the production of the munitions, in respect of which a release was requested, was sufficiently urgent to justify the release, the immediate question at issue being the howitzers which Mr. Lloyd George had ordered in excess of the Army Council's requisition. But the needs of the Ministry had already altered in character ; and on 20 April the Cabinet decided that the skilled men enlisted from the shipbuilding yards and marine engineering shops, up to 6,500, should be released from the Army.¹

On 19 April the Ministry wrote to the War Office pointing out that instructions had been issued for the release of 1,543 only of the 2,000 men whom Sir John French had agreed to release in bulk. The Minister hoped that the Army Council would enable him to obtain the balance and also permit individual releases on direct application to be effected as before.²

The Army Council replied on 3 May regretting that any misunderstanding should have arisen concerning releases from the Expeditionary Force.³

" They have communicated with the Commander-in-Chief and they find that it was understood by him that 2,000 was the maximum number of releases which he was called upon to sanction. He informs them that he has now released 2,026, and that he is unwilling in view of the general situation to release more. In reply the Army Council have informed him that they concur generally in his decision, but they will continue to forward direct applications for release in cases in which they are satisfied that the services of the men concerned will be of greater value to the State in munition works than in the field, and that they hope that wherever the local situation permits the men so applied for will be released.

" The state of munition supply has now improved so much, and the question of the provision of adequate numbers of trained soldiers has through circumstances beyond the control of the Army Council become so difficult, that they have issued instructions that applications for release from the Colours will in future only be sent forward to units in cases in which the services of individual soldiers are urgently required in connection with the production of some specific weapon or article, in the supply of which there is an immediate deficiency.

" The Army Council hope that the Ministry of Munitions will co-operate with them in this, and that, prior to putting forward an application for release, it will determine that the

¹ M.W. 63424/31 and 34. ² M.W. 63424/29. ³ 19/Gen. No/5484, A.G. 5.

services of the men applied for are required to hasten the production of some article which is deficient in the field, and not merely to facilitate the completion of contracts for the delivery of munitions of which there is no immediate or prospective shortage.

"The Army Council have recently decided that men for work in the shipyards, up to a total of 6,500, are to be released from the Colours on direct application. This will be a serious drain upon the available resources of trained soldiers, and the Army Council feel that they cannot continue to release trained men who are fit for general service unless the need for an immediate speeding up in the deliveries of certain classes of munitions, upon whose production the men released are to be employed, is specifically brought to their notice."

The War Office lost no time in acting upon this new claim. On 4 May a number of direct applications were sent back to the Ministry with the request that they should be classified according to the work for which the men's services were required, in order that the War Office might judge of their relative urgency.¹

Sir H. Llewellyn Smith, therefore, wrote on 5 May to General Macready expressing surprise at the line which the War Office was taking.²

"I thought that throughout we had made it clear that the responsibility for determining questions of urgency of munitions work (both absolute and relative) is one that we cannot share with any other Department, any more than we ask to share in the War Office's responsibility for determining the urgency of the needs of the Army in respect of men. If a question of high policy should arise of balancing the need for munitions against that for men with the Colours, it would of course have to be determined by the War Council, and if necessary the Minister will doubtless raise it; but I should strongly deprecate such a course if it can be avoided, as I believe it can. We are ready to satisfy you in all reasonable ways . . . but we cannot consent that after our considered verdict has been arrived at, the War Office should exercise an independent judgment as to the need of the munitions work on which the men are to be employed; nor can we obviously limit our applications to men required for making articles of which, at the moment, there is a deficiency in the field. Such a course would make all foresight and systematic provision for future needs impossible."

On 8 May Sir H. Llewellyn Smith informed General Macready that he had discussed the question with Mr. Lloyd George, who wished to settle the matter as quickly as possible and had put it down on the Agenda of the War Committee for the 9th. A conference took place

¹ R.C. 012033.

² M.W. 63424/29.

the same day, and in consequence of what was said Sir Hubert told Mr. Lloyd George that the question need not be raised at the War Committee.¹

“ It has now been made abundantly clear that there is to be no attempt to challenge our munitions programme by holding up releases from the Colours, and that this Department, and not the War Office, is to be the judge of questions of urgency of munitions supply. We on our part have agreed that until further notice we will confine future applications for release to men required for firms who are on our Priority List.”

The Adjutant-General was not prepared to accept this minute of the interview without some qualification.² It might perhaps be necessary at some future date for the Army Council to consider the supply of men for the Army in connection with the output of munitions actually required by the Army. But the immediate difficulty arose in regard to the Priority List. It was not understood by the War Office that inclusion in this list was a condition of future applications only. Consequently a large number of applications already forwarded to the War Office were thrown back upon the Ministry, although they had just been examined by Sir G. Younger in order to satisfy the objections of the War Office. “ I am convinced,” he wrote³ to the Adjutant-General on 17 May, “ of the immediate and urgent necessity of granting releases to the men whom I have passed. . . . In consequence of the grave shortage of all classes of steel, it is essential that every man who can assist in increasing output should be released . . . no matter where stationed.” The Ministry protested. But the Adjutant-General was reluctant to admit of any exception to the condition that releases should be sanctioned only for firms on the Priority List.

The acceptance of this condition at all by the Ministry was unfortunate.⁴ For the object of the Priority List was to guide the civilian labour available at home to the places where it was most needed. But the men whose release from the Colours was applied for, at any rate from the spring of 1916 onwards, belonged to the skilled trades in such industries as shipbuilding and metal manufacture, which were entirely employed on essential work; and just because the skilled men could not be obtained at home, it was necessary to bring them back from the Army. The ultimate effect of accepting the condition was a large addition to the number of firms on the Priority List, and a diminution of its value for the purpose for which it was originally drawn up. The immediate effect, owing to the misunderstanding just described, was the holding up of a large number of applications of real urgency.

At last, on 28 July, it was agreed⁵ that the outstanding applications for individual release (2,000 in number) should be sent forward as part of the 6,500 releases authorised under the shipbuilding agreement,

¹ M.W. 63424/29.

⁴ M.W. 63424/58.

² M.W. 63424/33.

⁵ M.W. 63424/48.

³ R.C. 012033.

although the firms applying were not on the Priority List, provided that soldiers employed as artificers or in process of transfer as artificers to R.F.C., R.A., A.O.C., or A.S.C. should not be released unless they were specifically required for work in shipyards under the original agreement. The first part of this agreement was reached on 7 June at a meeting between Dr. Addison and the Adjutant-General.¹ The proviso was suggested by the latter on 30 June, and after considerable discussion accepted by the Ministry on the understanding that their application for a skilled man should not be the first step towards his transfer to artificer's work in the Army.²

In the meantime the Army in France was not unnaturally protesting against the release of trained men, especially since the claims on the units raised in the shipbuilding centres were very heavy. Thus General R. P. Duncan wrote on 12 July³ :—

"I wish to protest most strongly against the ruining of a battery which is already good, and which promises to become most efficient, by taking one by one a number of the trained men who are almost entirely apprentices. Every man in this battery is from Sunderland, and almost all are from the shipyards."

In consequence of such protests Mr. Lloyd George, who had become Secretary of State for War on 7 July, decided, on 28 July, that no man employed as an artificer in the Army should be released without specific orders from the War Committee.⁴

During the summer of 1916 soldiers serving in the Forces at home were released, as a rule, without delay; but owing to the Battle of the Somme few were returned from France until September and October.⁵

In connection with shipbuilding and marine engineering the following results were reported on 18 November, 1916⁶ :—

Direct applications received	7,071
Applications recommended by Ministry to War Office ..	6,470
Applications refused by War Office	721
Soldiers reported as having started work	3,816
Applications returned to Ministry for re-submission under A.R.M.W. scheme	946
Balance (mainly overseas releases ordered by War Office, but not yet carried out)	987

¹ M.W. 63424/41. It was also agreed that the Ministry might apply for named individuals under the shipbuilding arrangement to be sent to places where they were needed whether or not their previous employers asked for their return. 336 recommendations were made under this arrangement, and 145 men started work by 18 November, 1916. M.W. 63424/79.

² M.W. 63424/48.

³ HIST. REC./R/323/10.

⁴ M.W. 63424/61. 19/Releases/545. A.G. 5.

⁵ M.W. 63424/77 and 62. On 30 September it was reported that the War Office had up to 31 August issued instructions for the release of 1,537 men serving overseas who had not yet been released.

⁶ M.W. 63424/79.

V. The War Office Proposes to Alter the Status of Released Soldiers.

The second Military Service Bill, which was introduced on 3 May, 1916, contained the following clause :—

“ The Army Council may make arrangements, to take effect during the continuance of the present war, for the transfer to the Reserve of any member of the Regular Forces or for the temporary demobilisation of any member of the Territorial Force in cases where the transfer or demobilisation appears expedient in the general interests of the country and the Army Council are satisfied that it can be effected under conditions which will render the man transferred or demobilised immediately available for service in the case of military necessity.”

On 8 May Sir H. Llewellyn Smith¹ wrote to Sir R. Brade that he was anxious about this clause, since it enabled the Army Council to transfer all released soldiers to the Reserve. If this were done separation allowances would be stopped, the men would become wholly dependent on their civil wages, the Ministry would be deprived of the control of their movements, and of the discipline consequent upon the power to return a man to his unit. He asked that either a proviso should be inserted excluding soldiers released from the Colours, or an undertaking should be given that the Army Council did not intend to apply the clause to these men. On the same day Sir Hubert saw the Adjutant-General, who agreed to the latter course.

The clause was discussed in Committee on 10 May. It was viewed with grave suspicion by some members of the House as involving “ industrial conscription.”² Mr. Long, however, maintained³ that it offered the only real way by which soldiers could be used in industrial employment without any form of industrial compulsion. Hitherto, if men enlisted in the Army were required for industry there was no choice between discharging them from the Army altogether and lending them for employment.

“ To lend them is unsatisfactory. Although the War Office have behaved with great tact and consideration and have really done all in their power to make those men free labourers, the fact is that those men are soldiers and are liable at any moment to come under military discipline; if that seemed necessary or desirable. We want to avoid that altogether. . . . If the Army find that a man is not wanted with the Colours for military purposes, they will offer him the opportunity to go to his own occupation, his old home, or wherever he thought he could get the best employment open to him at the time. The moment he passed into the Reserve he would become a free and independent workman like anybody

¹ M.W. 63424/46.

² *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 877.

³ *Ibid.*, 972.

else. The only liability resting on him would be that in return for a small payment per day he would be liable to be recalled to the Colours in the event of some national emergency—say, an invasion of this country.”

Later, Mr. Long again emphasised the freedom of the man transferred to the Reserve.¹

“He takes off his uniform and puts on plain clothes. He goes away a perfectly free man; he goes where he likes; he works where he likes, or he need not work at all. He can do just as he likes. He can leave his employer if he likes. He can choose his own employer. He is just as free, I was going to say, as I am; but he is a great deal more free than I am, as I am tied to the House of Commons.”

The representatives of Labour naturally welcomed this declaration, and to clinch it the proviso was added to the clause² :—

“Provided that during such period of transfer or demobilisation the man shall not be subject to military discipline.”

Asked whether this clause would be applied to soldiers already released from the Colours, Mr. Long said³ :—

“I do not know what arrangements the Army Council may make with the Ministry of Munitions, but what I imagine they will do in future will be to pass men into the Reserve when they are required for industry. Create this Reserve and the Army Council will be able to pass through it any men they choose. The responsibility will rest with them.”

On 15 May the Adjutant-General wrote⁴ to Sir H. Llewellyn Smith that it was necessary to reopen the question of the status of released soldiers. He had spoken to Lord Kitchener on the subject, who said that the men were not passed to the Reserve, but maintained on the rolls of the Army, because it was thought that they would be required only for a short time on munitions work, until civilian labour could be found and trained. Lord Kitchener had no idea of this loan developing into a permanent system; but since it was now evident that such men would be employed on munitions until the end of the War, he proposed to reopen the matter officially and pass to the Reserve all men who had been detached from the Army for more than three months.

Sir H. Llewellyn Smith replied⁵ on 17 May expressing surprise at this proposal in view of the assurance given on 8 May. He understood that it was due in part to the Labour Party's fear of “industrial conscription.” The Ministry's main objection was that the change would affect the wages and allowances of the soldiers, and this would

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXII. 976.

² *Ibid.*, 879.

³ *Ibid.*, 983.

⁴ M.W. 63424/46.

⁵ *Ibid.*

cause an upheaval. It would also be more difficult to return the men to the Army.

The Adjutant-General replied on the following day, repeating Lord Kitchener's opinion. He did not anticipate the difficulties suggested. It would be easy to arrange that the separation allowance or its equivalent should be continued; and the New Reserve could be called up at a moment's notice.

On 23 May Lord Sydenham asked¹ in the House of Lords whether soldiers already released would be transferred to the Reserve. But Lord Sandhurst only replied that the Secretary of State for War desired him to say that the matter was under consideration.

The following day, however, in the House of Commons, Mr. Long said² that the Army Council had done their best to meet the shortage of skilled labour by release from the Colours, "but the Army Council find that this had undoubtedly resulted in some limitation of the actual freedom of these men and they do not think it is a system that will continue to work. They, therefore, authorise me to say that as soon as they have the machinery available they intend to place these men in the new Reserve, which is created under this Bill, taking care to obviate any financial loss or detriment to the men."

The Ministry had not concurred in this decision of the Army Council, nor had its consequences been weighed. As Major Scott pointed out³ the following day, of 36,474 soldiers who had started work on munitions, 24,176 had been released in bulk. These men were not living at home, but where the Ministry considered their services would be most useful. The Royal Warrant of 11 May, 1915, had assured them that if they consented to come forward as munition workers they would retain all their rights and privileges as soldiers. But now they would be transferred compulsorily to the Reserve, divested of their military rank, uniform and privileges. Their presence in the factories had been a great moral force among their fellow-workmen. But now many of them would undoubtedly do their best to recover their military status by returning to the Army. Others would go home to their wives and relatives. Section 7 of the Munitions Act would not keep them where they were; for, as the Ministry had found, Tribunals would not refuse leaving certificates to soldiers who were discharged on the expiry of their time and wished to go home. And after Mr. Long's pledge, it would be quite impossible to retain a member of the new Reserve in a particular employment against his wish.

On 10 June the Army Council informed⁴ the Ministry that they had decided to transfer all soldiers released for munitions work to the Reserve. In their opinion the men should remain approximately in possession of their present emoluments, which the Ministry would

¹ *Parliamentary Debates* (1916), *H. of L.*, XXII. 96.

² *Ibid.*, *H. of C.*, LXXXII. 2133.

³ R.C. 012033/1.

⁴ 105/Gen. No/2240, A.G. 5. M.W. 63424/45.

in future make good, since men in the Reserve were not entitled to any payments from Army funds. The reasons given by the Army Council for this course were as follows :—

“(1) They are extremely averse to any use of the powers of the Army Act in the direction of compelling men to engage or continue engaged in civil employment.

“(2) Experience has shown that men released from the Colours are difficult if not impossible to discipline, and that their slovenly appearance in uniform or partly in uniform has a detrimental effect upon the discipline of the Army as a whole.

“(3) It does not appear desirable to maintain upon the strength of the Army men who are in fact doing no military work, and who are not immediately available for military service.”

On 17 June Dr. Addison informed¹ Mr. H. W. Forster that Mr. Lloyd George took a very serious view of the consequences of the action proposed by the Army Council, and intended to raise the question in the Cabinet at the earliest opportunity.

At the meeting of the War Committee on 22 June the matter was considered,² Mr. Arthur Henderson, Sir W. Robertson, Sir N. Macready, Sir G. Younger, and Dr. Addison also being present. The members of the Ministry urged that to transfer the soldiers to the Reserve would have a disastrous effect on the output of munitions, since the Ministry would no longer be able to place and retain the men where they were most needed. The War Committee decided that for the time being no change should be made, but the whole question should be discussed between the Admiralty, the War Office, the Ministry and Mr. Henderson.

A conference accordingly took place on 6 July.³ After discussion, it was unanimously agreed that the men already released should remain soldiers in full possession of their military status, privileges and emoluments; but in future men should only be released on the understanding that they would pass into the Reserve and work where the Ministry required. They would no longer be entitled to the pay and allowances of soldiers, but would receive the district rate along with an allowance from the Ministry approximately equivalent to any separation allowance to which they might have been entitled as soldiers.

On 19 October, 1916, the release of soldiers from the Colours under the conditions of Army Council Instruction 344 was discontinued, and the new procedure was set up by which soldiers were transferred to the Reserve and returned to civil employment as civilians.⁴ On 25 November, however, the War Office again endeavoured to alter

¹ M.W. 63424/45.

³ M.W. 63424/55.

² M.W. 63424/45.

⁴ A.C.I. 1989 of 1916. M.W. 63424/78.

the status of the soldiers released under the earlier scheme.¹ The change was said to be imperative, but no new reason was adduced. After some correspondence, in which the Ministry maintained their objection to the change, Sir Stephenson Kent saw the Adjutant-General on 24 March, 1917, and he agreed that the men should remain under the conditions on which they had been released.²

VI. Summary of Results.

Up to June, 1916, 43,231 soldiers were recorded as having started work, and a census taken in the same month showed that 35,196 soldiers were then at work. The difference between these figures is due to three causes. After starting work many soldiers, chiefly men belonging to Territorial units, had been discharged on the expiry of their time. Others had returned to their units. Others had been transferred to new employers. No figure is available for the first of these classes, since the War Office did not inform the Ministry when a man was discharged. 1,225 transfers were recorded between November, 1915, and 31 May, 1916; and during the same period 1,755 soldiers were known to have returned to their units. But neither of these figures is complete, even for the period during which records were kept. For until the end of 1915 transfers were made irregularly, and employers were frequently remiss in reporting to the Ministry when soldiers left or were dismissed.

By 10 November, 1916, the number of soldiers recorded as having started work had risen to 51,781, an increase of 8,550. In the meantime, 1,224 transfers had been effected, and 1,093 men were known to have returned to their units. If allowance is made for the discharges which had also taken place, it may be estimated that 40,000 soldiers were at work when the system of releasing men from the Colours came to an end.

Of the 51,871 soldiers who reported for work 20,888 were released on direct application, 30,893 under one or other of the Bulk Schemes. It is estimated that the latter total is made up as follows:—

Soldiers released by War Office or Armament Buildings in bulk	4,184
Soldiers released under Bulk Scheme of 9 June, 1915 ..	1,851
Soldiers released under United Kingdom Bulk Scheme of 16 September, 1915	20,529
Soldiers released under B.E.F. Bulk Scheme	1,543
Soldiers released under R.N.D. Bulk Scheme	192
Soldiers released in bulk for shipbuilding under agreement of 17 June, 1916	145
Soldiers transferred by Ministry from one employer to another	2,449
	<hr/>
	30,893
	<hr/>

Of the 20,888 soldiers released on direct application, 841 were released before Major Scott undertook the organisation of this work.

¹ 105/Gen. No./2240, D.R. 3. M.W. 63424/45.

² M.W. 63424/85.

In connection with these releases the Ministry investigated more than 250,000 cases, and the men were allocated among nearly 4,000 employers.

It is not possible to state exactly how these soldiers were distributed in October, 1916, either by Trades or Industries. But figures are available for the soldiers (approximately 30,000) still in employment in the last quarter of 1917. No doubt the percentages altered to some extent in the interval. The number of soldiers employed in 1917 in shipbuilding, marine engineering and metal manufacture was greater relatively than it was in 1916, and the number employed on machinery, arms and ammunition considerably less. Indeed a change in these directions had been going on steadily since the beginning of 1916, as the importance of developing the basic industries was more and more clearly recognised.

The following estimate of the distribution of released soldiers was made in September, 1917 :—

	<i>Per cent.</i>
Shipbuilding and marine engineering	30.1
Mines and quarries	1.8
Metal smelting, forging, rolling, casting and drawing ..	23.4
Chemicals and Explosives	6.5
Machinery, Plant and Tools	13.1
Arms and Ammunition	14.4
Aircraft	4.9
Transport Vehicles	2.7
Miscellaneous	3.1

Appendix X. shows in detail the distribution of released soldiers by trades in December, 1917. The results may be roughly summarised as follows :—

	<i>Per cent.</i>
Shipyard Workers	20.0
Fitters and Turners	31.7
Metal Machinists	9.4
Smiths and Sheet Metal Workers	6.2
Moulders and Foundry Workers	4.4
Smelters, Puddlers, Furnacemen, etc.	13.0
Chemical Workers	3.6
Others	11.7

The diagram in Appendix XII. shows the average number of released soldiers who started work each week, and their relation to the skilled and semi-skilled labour supplied by the Labour Exchanges to the Munitions industries. From the middle of November, 1915, the curve of vacancies filled by the Exchanges includes soldiers released in bulk. It should be observed that from November, 1915, to March, 1916, nearly two-fifths of the labour supplied through the Exchanges in the engineering, shipbuilding, metal and chemical industries was obtained from the Army. Nor should it be forgotten that for many of the pivotal trades, especially in the basic industries, Release from the Colours was the only available source of supply.

CHAPTER IV.

THE TRAINING OF MUNITION WORKERS.

I. The Problem of Using the Technical Schools to the Best Advantage.

The great expansion of the munitions programme contemplated by the Ministry in June, 1915, naturally led to a consideration of the manner in which the Technical Colleges and Schools could best be used to further its execution. The solution of this problem was by no means obvious. The most pressing need at the moment was for skilled labour. But this the Technical Schools were not in a position to supply. Few of them were well equipped with suitable machine-tools, nor was there any likelihood of obtaining these for many months to come. Indeed, the demand for machinery for actual production was so urgent, that it was thought advisable to transfer to the National Shell Factories such serviceable machines as some of the Schools already possessed. The provision of instructors, at once highly skilled and able to teach, involved a similar difficulty. The feverish eagerness to secure output, and the general tendency to take short views, pointed to production rather than instruction as the first duty of the skilled mechanic. Moreover, the traditional methods of training by which the student became acquainted with a variety of tools and gained experience in bench work, besides some theoretical knowledge of the principles of engineering, could not produce operatives of the kind or number that was required in the emergency with which the country was faced. Such training was necessarily slow, and the number of persons trained was consequently small. And they were neither skilled mechanics nor capable of performing semi-skilled operations efficiently. Although they were intelligent and adaptable, many employers looked upon them with little favour, since they were not actually qualified for production in the workshop.

On the other hand the imagination of the country was profoundly moved by the recent disclosure of a shortage of shells. In all classes of society people were eager to fit themselves for munitions work. The Technical Schools were besieged by applicants anxious to meet what seemed to be the most urgent call of the hour. In particular, professional men and tradesmen in industries depressed by the War came forward in large numbers; and from these classes the Ministry was most anxious to recruit labour, since it would be less likely to meet the opposition of the trade unions, or to prejudice employment in the engineering trades after the War. If the Technical Schools had not been restrained by the knowledge that they were ill-equipped and staffed for the work, and by the fear that they might not be able

to place in the shops those whom they trained, they could have been filled many times over in the summer of 1915. Where training courses for munition workers were arranged, the seriousness of all and the remarkable progress of some made a deep impression and proved that, if only the right form of training could be found, large resources of labour were available.

The initiative was taken by some of the local education authorities. On 26 June, 1915, Sir R. Blair informed¹ Dr. Addison that the Metropolitan Munitions Committee proposed to give an order for gauges to the Polytechnics, while the Technical Schools under the London County Council were prepared to do some training. He asked to be put in communication with some officer of the Ministry who was ready to specify the kind of training required, and forwarded a report made by the technical inspectors of the County Council on the very successful work which was already being done by the Technical Schools at Birmingham and Aston.

Accordingly, on 7 July Dr. Addison met representatives of the London County Council and the Board of Education.² They said that unskilled people were very anxious to obtain short courses of training for munitions work, but it was most undesirable to call for volunteers, and subsequently find it impossible to use their services. It was important that small orders for munitions should be given to the Technical Schools in order to impart reality to the work of training. All agreed that the Schools could only aim at producing semi-skilled workers, and that those who were trained must be prepared to work the whole of their time on munitions.

On 12 July Mr. Glynn West wrote³: "I agree with Dr. Addison's suggestion that the best of the Technical Schools should be used as training schools and that the machinery in the rest of them should be placed at the disposal of the National Factories, where suitable." In this opinion Sir P. Girouard concurred.

On 21 July the Board of Education wrote to the grant-aided Technical Schools.⁴ The Board had received a communication from the Ministry of Munitions, pointing out the urgent need of increasing the supply of skilled and semi-skilled workers for Armament Factories and calling attention to the possibility of enlisting the aid of the Technical Schools. Experience showed that there was no difficulty in getting students; that it was advisable to require of them an undertaking to work whole time with a munitions firm; that serious workers without previous experience in the use of hand or machine tools were capable of making astonishing progress. The courses might vary from 20 to 120 hours according to the equipment and the work done. In the shorter courses it was probably desirable to teach the students

¹ M.W. 16337.

² *Ibid.* At this time 16 Technical Schools were making munitions, nine were holding training classes for munition workers, and three had lent machinery to the National Shell Factories.

³ M.W. 16337.

⁴ T. 1996/15. Copy in M.W. 16337.

at once some specific operation or the use of some specific tool ; in the longer courses some general training in bench work might be found desirable as a preliminary to more specialised instruction. The Schools should get into touch with firms in order to ascertain the probable demand for men trained as above, the type of work and the nature of the instruction which the School should supply. Help might also be obtained from the Munitions Committees. The Schools should issue certificates to those whom they trained, stating the length of the course and the nature of the work done. The Board regarded the establishment of training classes on the lines indicated as being of the greatest importance. Such classes would, of course, be eligible for grants under the Board's Regulations for Technical Schools subject to compliance with the usual conditions.

II. Preliminary Steps Towards the Formulation of a Policy.

August—October, 1915.

In the first week of August, 1915, Mr. T. M. Taylor was appointed by the Ministry to deal with the training of munition workers in Technical Schools. Before making an effort to push the work forward it was decided to ascertain the views of employers. For this purpose the newly-appointed Labour officers were instructed¹ on 17 August to inquire of certain firms engaged in typical branches of munitions work concerning their willingness to take men trained in the Technical Schools, the extent and time of the demand, and the nature of the operations in which it was desirable to train students. The training would be practical and determined by the requirements of the local manufacturers, and it would at first be restricted to skilled men adversely affected by the War and to men of superior education, in order to secure an intelligent body of learners and avoid the dislocation of industry.

While this inquiry was being made, negotiations on finance took place between the Ministry, the Board of Education and the Treasury. The Board of Education urged that since the Technical Schools were being diverted from educational to strictly utilitarian work, they had no longer a claim to grants from the Board. The Local Education Authorities felt it unfair that money drawn from local rates should be applied to an object that was essentially national. The Ministry considered that without some financial control it could not co-ordinate the work of the Technical Schools or ensure the kinds of training which were most likely to be effective. On 17 September, therefore, the Ministry asked the Treasury to sanction the payment by the Minister of actual out-of-pocket expenses incurred by the Local Authorities or other Boards in providing, with the prior consent of the Minister and of the Board of Education, training in mechanical operations for munition workers.² These expenses would include :—

(a) Salaries and fees of teachers or a proportion of these, according to the time devoted to the work.

¹ Circular L.O. 2.

² M.W. 32353.

(b) Actual cost of fuel, light, cleaning and materials so far as not supplied by the Ministry of Munitions.

(c) Cost of making good any damage to premises, equipment or apparatus.

(d) A reasonable allowance for depreciation of apparatus.

(e) The cost of altering, providing, or re-assembling machinery to meet the special requirements of the Ministry of Munitions.

The Ministry accepted the suggestion that the Board of Education should act as their intermediary with the Local Authorities in respect of work done, and that the Board of Education should undertake the scrutiny and verification of all claims made by the Authorities before recommending them to the Minister for payment. On 28 September the Treasury sanctioned these arrangements.¹

In the meantime the Ministry had obtained, through the Labour Officers and by direct communication with the Education Authorities, a clearer understanding of the situation.² In a few centres training classes had been held successfully and the men had been placed without difficulty; in others the men had been forthcoming for training, but no steps had been taken officially to secure them employment; in others, again, classes had been started and abandoned, owing to the apathy or hostility of employers; in others nothing had been done at all. There was a similar diversity in the matter of instruction, which had been left generally to the discretion of the head of the Technical School, who was not always in touch with actual manufacturing needs and methods. In many cases the training was too academic and ambitious. Instruction was given in too many processes, with the natural result that in the short course of training, which alone was possible, the students received an inadequate general training instead of acquiring facility in one specific operation.

While some of the Schools were engaged in training, others were using their machinery for making munitions, and others had lent their lathes and milling machines to National Factories. It was clear that Schools where gauges were being made with success, such as the Northampton Polytechnic and the Goldsmiths' College, should not be interfered with; but where they were producing only a small number of shells a week, it was open to question whether they would not be more usefully employed in training relays of men to use the lathes.

No difficulty was experienced in getting students of the right type. Where classes had been started, there was as a rule a waiting list sufficient to take up all the accommodation available for some time to come. But difficulty had already been found in securing employment for the men trained, and it was anticipated that this

¹ Treasury Letter, 22181/15.

² Report by Mr. T. M. Taylor, 20 September, 1915. M.W. 51164/2A.

difficulty would grow and become a fatal bar to the extension of training, unless the prejudices of employers as well as their reasonable objections could be overcome. In many parts of the country they took the line that the proposed training was inadequate for skilled work and unnecessary for repetition work. They pointed out that since each man on shell work would be engaged in one operation only, and special appliances had been designed and made for each operation, any short general training he might get would not be of much use to him. A week in the works would teach a man more than a month in the Technical School. Others said that when they wanted additional labour they would get it by taking from the mills women already used to working on running machinery. Many were apprehensive of difficulties with the trade unions if they employed men trained in the Technical Schools.

The Ministry hoped that the opposition of the trade unions would be diminished if training was confined to professional men and artisans whose trade had suffered from the War. But the National Advisory Committee, when consulted on this matter, expressed the opinion that there were sufficient unskilled workmen depending on their work for a livelihood who could be trained in simple operations in the workshop.¹ Cases were brought to the notice of the Ministry of men trained in the Technical Schools who had thrown up their jobs on account of the treatment they received from members of the A.S.E. And the foremen, who normally engaged labour, were in many places affected by the prejudices of the trade unions. Even if they had no class feelings in the matter themselves, they were naturally unwilling to introduce a possible source of trouble into their shops.

On the other hand, the Education Authorities had a firm belief in the value of training, and the Ministry knew that the completion of the National Factories and the extension of many private establishments would entail an immense demand for additional labour. An intelligent man with some experience of a lathe would be a more desirable recruit than an unskilled person who knew nothing of machine tools. At the least he would be less likely to produce scrap or damage his machine. Even if he needed some instruction to adapt himself to the new conditions of the factory, he would need much less than one who had had no practice in operating machinery. And it was essential to economise to the utmost the use of the skilled men in the workshops, even if they were as capable of imparting their knowledge as the instructors in the Technical Schools. Moreover, intelligence and adaptability were valuable assets. New processes and new products would be called for in the course of the War. Finally, the Technical School was the most suitable, if not the only avenue of approach to the factory for large numbers of men and women who were anxious to do their part, but hesitated to plunge without any previous training into an engineering workshop.

¹ M.W. 39923.

III. The Ministry's Scheme for Training Semi-Skilled Mmunition Workers in Technical Schools, November, 1915.

In the light of these considerations the Ministry drew up a scheme for training semi-skilled munition workers in Technical Schools,¹ which was circulated on 5 November, 1915, by the Board of Education to the Schools and the Local Education Authorities.²

Extensive inquiries had convinced the Ministry that the scheme was fundamentally sound. Where the training had been conducted on the right lines, the reports of Education Officers and employers alike left no room for doubt as to the value of the training, the adaptability of the learners and their usefulness in the factories. In view of these facts and of the large increase in the demand for unskilled and semi-skilled labour that would ensue from the erection of new factories and the extension of existing works during the next few months, the Ministry had decided to encourage the use of facilities for training in all Technical Schools to the full.

In certain Technical Schools machinery and labour were being used in the manufacture of munitions. The Ministry desired that preference should be given to the training of munition workers, except in special cases where very highly skilled work (such as the making of gauges) was being undertaken. The Ministry were convinced that where lathes were available in Technical Schools they would be better employed in training workers for munition factories than in the production of a small number of shells.

It was not intended to lay down a rigid set of regulations to which all Technical Schools should be compelled to conform. The variety of equipment in different centres, the facilities for giving instruction, the varying needs of different localities in the quality and quantity of labour, necessitated some differentiation; but it was desirable that certain general principles should be observed.

The Ministry wished to give special emphasis to one essential feature of the Training Scheme. The training to be given must be *thoroughly practical*, and purely educational ideals must give place to utilitarian methods. The benchwork, which normally absorbed so large a proportion of the learner's time in Technical Schools, should be reduced to a minimum. The aim of all such courses should be to impart to the learner the "machine sense" and to teach him to use a certain definite machine-tool on which he was likely to be employed in a factory. To this end it was most desirable that principals of Technical Schools and their instructors should get personally into touch with munition works, so that they might make themselves acquainted with their methods and be able, so far as the equipment allowed, to direct the tuition on the most suitable lines.

¹ Memorandum Training 3. *Scheme for Training Semi-Skilled Mmunition Workers in Technical Schools.*

² Circular 922. *Payments in Respect of Courses of Training for Munition Workers.*

The Ministry attached great importance to this point, and for this reason they had assumed the liability for the payment of out-of-pocket expenses incurred in the provision of training classes to meet their requirements. Such payments were conditional upon the observance of the regulations and conditions laid down from time to time, and upon the joint official approval by the Ministry and the Board of Education of all schemes either projected or in operation.

For the purpose of drawing up or adapting training schemes to meet the needs of the Ministry, and generally dealing with the whole subject, a small local committee should be formed to assist the Local Education Authority and the managers of the school concerned. This should normally include one or more representatives of the Authority or the managers, the principal of the Technical School, the secretary of the local Munitions Committee, and the managers of the Labour Exchanges.

Although the Ministry did not propose to insist on uniformity in detail for all training classes, the following points should be carefully noted :—

(1) No male learner must be accepted who was of military age, unless he was for some reason debarred from military service.

(2) As far as possible learners should be men or women of superior intelligence who were likely to learn quickly, *e.g.*, professional men, those who had had a secondary education, men skilled in other trades, such as cabinet makers, jewellers, etc., who would return to their ordinary occupations after the war.

(3) Preference should be given to those who were willing to leave the town where they lived and go where there was a demand for labour.

(4) Each learner entering a class must give a written undertaking to work whole-time in a munition factory on the completion of the course. In case of failure to do this without good cause, the cost of the training would be recoverable.

(5) No fee should be charged for any course in respect of which it was intended to claim a grant from the Ministry of Munitions.

(6) Each learner satisfying the Head of the School should, on the completion of the course, receive a certificate of efficiency specifying its nature and duration. The utmost care should be exercised in this matter. The whole scheme would fail if incompetent persons were placed in factories on the strength of their certificates.

(7) The Head of the School must have absolute power, on the advice of his instructors, to eliminate the unfit at any stage of the training. This power must be fully used if waste of time and money was to be avoided.

(8) Weekly returns on prescribed forms must be made in duplicate to the Ministry of Munitions for their use and that of the Board of Education.

(9) Periodical inspection of training classes would be undertaken by the Board of Education Inspectors and representatives of the Ministry of Munitions.

(10) The number of applicants would probably be far in excess of the accommodation available, and a waiting list would be necessary. It was not essential that learners should be taken strictly in the order of their application. Priority should be given to applicants who seemed likely to make specially good munition workers.

(11) The length of the course must be largely conditioned by consideration of local circumstances. The Ministry was not prepared to sanction any course which provided less than 30 or more than 100 hours' instruction. Where classes were worked in shifts, no class should last for more than one month.

After explaining the nature of the expenses which the Minister was prepared to meet,¹ the Ministry concluded by urging the Training Committees to leave nothing undone to ensure the placing of these students in munition factories. In particular it was necessary to get assurances of employment for women before undertaking to train them. Normally, the output of the Technical Schools would be absorbed locally, but where local openings were not immediately available the Labour Exchanges should be of great assistance. It had been arranged that the Exchanges should keep a special register for those who were trained in the Schools, and be in touch with employers who were willing to engage their pupils. The Ministry was convinced that the scheme would help in some degree to provide the labour which would be urgently required, and that it needed only a careful attention to local conditions and the cordial co-operation of the various authorities to make it a success.

IV. Some Difficulties Experienced in Carrying out the Ministry's Scheme.

The new arrangement was put into operation without delay. By the end of the year the majority of the Local Education Authorities had submitted schemes which were generally in accord with the requirements of the Ministry; but before they were sanctioned a thorough inquiry into the resources of the Technical Schools was made by the Engineering Inspectors of the Board of Education. Most of the schools asked for additional equipment. What they possessed was often quite insufficient for the purpose of really practical training; the buildings were small; the machinery was light and old-fashioned; many of the heavy lathes and other useful tools had recently been transferred to munition works. But the utmost difficulty was found in securing suitable lathes, either new or second-hand; milling machines and surface grinders were almost unprocurable, even with the assistance of the Machine Tool Department of the Ministry. Nor was it easy to find instructors with the requisite combination of qualities, practical experience of workshop conditions and skill in imparting their knowledge to pupils. Before the end of February, 1916, however, 57 schemes had been sanctioned in Great Britain, and almost all the Technical Schools with suitable equipment were engaged in training some 2,400 men and women for work in munitions factories, principally on shells.²

¹ See p. 60.

² M.W. 51164/18.

It was estimated that more than 4,000 students could be turned out each month,¹ if the demand warranted the full use of the facilities available in the schools. But this figure was never reached. The great obstacle was the difficulty in finding employment for those who were trained. Thus the return for the week ending 12 February, 1916, showed in Bristol 26 trained, four placed, 115 waiting for work; in Sheffield, 18 trained, four placed, 372 waiting; in Edinburgh, nine trained, six placed, 179 waiting; in Glasgow, 16 trained, seven placed, 99 waiting.² This was due to a variety of causes—delay in completing the new shell shops, the prejudices of employers and trade unions, the difficulty of transferring persons trained in places where little munitions work was being done to the great centres of industry, where lodgings were hard to find and the semi-skilled rate was 7d. an hour. But the principal cause was the fact that employers had no difficulty in securing for the ordinary work of making gun ammunition all the labour they required, and this work was so much simplified that it could be learned in a few days. The shortage of shells was not due to any scarcity of low-skilled labour to produce them, but to the want of highly skilled mechanics to make and instal the necessary machinery and to manufacture the requisite tools, fixtures and gauges.

No doubt employers often obtained their unskilled labour by depleting other industries. Thus colliers and agricultural labourers, and women from the textile mills were drawn into munitions factories, partly by the higher earnings, partly by the desire to be engaged on direct war work. So serious did this evil threaten to become that it was suggested³ in February, 1916, that all National Factories should be instructed to engage semi-skilled and unskilled labour, whether of men or women, only through the Labour Exchanges, and that the Exchanges should be instructed in supplying labour to draw as much as possible on the unemployed, unoccupied and unessential classes. The Supply departments, however, were reluctant to make the engagement of labour through the Labour Exchanges compulsory, although on 5 June a strong recommendation was issued to the National Shell and Projectile Factories urging them to take all their labour, both male and female, through the Labour Exchanges, and from no other source.⁴ In theory, no doubt, the most economical use of the labour of the country would have been secured if it had been possible to insist that all labour should be engaged only through the Labour Exchanges. But any proposal of this kind would have been strenuously opposed by the Trade Unions, even if the administrative difficulties involved in so complex and hazardous a task of organisation could have been surmounted.

Although by the joint efforts of the Technical Schools and the Labour Exchanges a considerable improvement was made in placing

¹ M.W. 51164/2A.

³ M.W. 71754/2.

² M.W. 51164/18.

⁴ E.D.C.O. Circ. 2499

those who were trained,¹ it became clear that the facilities of the Schools and the capacity of their students would not be used effectively unless the training was directed to objects more difficult and specific than the ordinary operations required for machining shells. As early as 7 October, 1915, Mr. Glynn West had expressed the opinion² that the best work that could be done by the Technical Schools consisted in "training semi-skilled men to do skilled work, such as screw-cutting and the use of the micrometer, etc. For ordinary shell-making and similar unskilled operations a man can acquire in the shops in about three or four days practically everything there is to learn in the use of the machine, and I consider it is a waste of available machinery to spend time training men for this purpose; all the classes should be arranged with a view to producing skilled mechanics, of which there is such a lack in this country. Men who do not show any aptitude in a few days could be passed along and other men tried. By this means we should gradually obtain a percentage of men who are really capable of doing fine work." This opinion, however, was not acted on immediately for the following reasons.³ The policy suggested would have involved the cancelling of the arrangements hitherto made and the suspension of the scheme projected in collaboration with the Board of Education. This scheme tapped a new and large supply of labour (professional men, shopkeepers, clerks, travellers, etc.) which experience had shown to be efficient and the employment of which would entail no dislocation of industry. The machinery in most of the technical schools was quite unsuitable for instruction in highly skilled operations. Any attempt to train the semi-skilled into the skilled worker in Technical schools would result in labour troubles as soon as such men were introduced into the works. It was decided, therefore, to proceed with the original scheme, and to modify it as experience and opportunity might indicate the way.

V. The Training of Tool-Setters.

Before the end of 1915 the attention of the Ministry was directed to schemes for training in tool-setting. The immense increase in repetition work involved especially in the production of shells and shell components had created a new and unprecedented demand for tool-setters; and this demand would be intensified as soon as the National Projectile Factories were completed. General tool-setting was a work requiring great mechanical skill and experience; but it was possible to train special tool-setters in a short time if the operations were limited to one or two which were relatively simple and easy. Semi-skilled machinemen, and even persons who were not mechanics, could be trained for such work, provided that they had the requisite patience and fineness of touch. In this way the highly-skilled general tool-setters would be enabled to devote themselves to the difficult and complex work which they alone could do.

¹ See Appendix XIII.

² D.D.G. (A)/7258.

³ M.W. 51164/18.

On 13 January, 1916, the Ministry wrote¹ to the controlled establishments, urging them to undertake systematically the training of tool-setters in their own shops, in order to meet their own requirements. It was not possible to lay down rigid instructions in regard to the types of men to whom training should be given. But the Ministry pointed out that workshop training in tool-setting had been given successfully not only to semi-skilled workmen but also to men drawn from such professions as architecture and surveying. This recommendation was extensively carried out; but it called forth protests from employers as well as trade unions, which indicate one of the difficulties with which the Ministry was confronted. Thus a representative employer in Sheffield replied² to the Ministry's letter that a man could not become a tool-setter by intensive training in a comparatively short period unless he was a practical mechanical engineer. If an attempt was made to educate partially skilled men in tool-setting, no success would be achieved during the period of the War. Similarly the Council of the A.S.E. informed³ Mr. Lloyd George that in their opinion the best interests of the nation were not being served by training unskilled and semi-skilled men for these important positions. They urged the necessity of selecting skilled turners and machinemen, who would be most easily trained and were eminently suitable for this class of employment. The suggestion that men who had no previous knowledge of the engineering trade could be trained in a few short weeks to attain a greater degree of accuracy than those who had had years of training could only emanate from one who was not conversant with the engineering trade or the limits of tolerance allowed on any branch of Government work.

Training in the factories, however, was not considered sufficient to satisfy the prospective demand. Primarily, in order to meet the needs of Messrs. Vickers at Crayford, where a very large plant was being installed for the production of machine guns, two special schools were established in January, 1916, one under Mr. Purdy, at Messrs. Buck and Hickman's, Mile End, the other under Mr. Mark Barr at the Wolseley Motor Works, Ebury Bridge. Students for these schools were mainly recruited from the professional classes. Owing to the delay in the delivery of machine tools at Crayford, Messrs. Vickers were unable to absorb the tool-setters under training at the anticipated rate, and the school at Ebury Bridge was closed on 3 June, 1916.⁴ But the Buckman School at Mile End proved most successful, and its equipment rendered training possible on a large variety of modern machines. For it was of the essence of the scheme that the students should be trained on the same machines, using the same tools and gauges and raw material as would be used in the factory for which they were destined.

In both of these schools the premises, plant, power, and lighting were provided without cost to the Ministry. But on 2 February,

¹ Circular Training 8.

² M.W. 59496/6.

³ M.W. 59496/7.

⁴ M.W. 51164/66.

1916, the Ministry asked¹ the Treasury to sanction expenditure on the teaching staff, and a maintenance allowance of £2 a week for the students under training. Each instructor would teach three pupils, and since he would earn from £3 to £5 a week if employed on munitions work, the Ministry considered that his services as a teacher could not be obtained at a lower rate than £3 10s. weekly. It was anticipated that half the cost of the maintenance allowance would be recovered from the firms to whom the trained men were sent. On 12 February the Treasury sanctioned this expenditure.²

About this time special courses for the training of tool-setters were arranged at the Regent Street Polytechnic, King's College, the Brixton School of Building, the Shoreditch Technical Institute, and the Technical Schools at Birmingham and Aston. At Brixton additional machine tools were lent by Messrs. Vickers, and with the help of the Machine Tool department the necessary additions were made to the equipment of the other schools, although progress was retarded by the great difficulty in obtaining suitable machinery. For the most part those who were admitted to these special courses had already passed through the ordinary preliminary course. These tool-setters came from all classes of society; architects and artists in particular proved successful in this work, which required accuracy and delicacy of touch. Between March and 9 September, 1916, 584, of whom six were women, were placed, many of them in the National Factories.³

In some cases the process of training was completed in the factories, certain machines being set aside for this purpose. This arrangement worked very well at the Dudley National Projectile Factory. Beginning in April, 1916, groups of partly trained men, mainly from the London Schools, were sent in relays to Dudley, where they received an intensive course of instruction before they were taken over by the works. As a rule these men became efficient charge hand tool-setters after a fortnight's special instruction. Several rose rapidly to positions of responsibility; in one case as a foreman, in others as assistant foremen or examiners. By this method 115 tool-setters were provided for the Dudley factory by September, 1916; and the great majority of the more complex machines (*i.e.*, machines with 6 to 12 tools) were set up by these men.⁴ Similar training units were established at Messrs. W. H. Allen's works at Bedford, the Tinsley National Projectile Factory, and the Ailsa Craig Factory, Chiswick. This arrangement was subsequently much extended.

In respect of tool-setting and other skilled operations, it was found necessary to relax the rule that no man of military age should

¹ M.W. 80510/2.

² Treasury Letter, 3059/16.

³ HIST. REC./H/325/1.

⁴ On 3 July, 1916, the Ministry's Engineer Inspector reported that the two finest setters up at Dudley were two lads under 18, trained at the Regent Street Polytechnic. They were thoroughly conversant with the construction of the machine, the speeds and feeds of material.

be accepted for training unless he was for some reason debarred from military service.¹ Men over 40 had, as a rule, neither the eye nor the adaptability needed for such work. They took twice as long to train and were less skilful when trained. The training authorities were, therefore, given discretion in this matter, and even in respect of the ordinary classes they were informed,² on 4 February, 1916, that they might admit men of military age who had been attested and placed in late groups, on the understanding that they would have to join their groups if called up while under training, but if they subsequently undertook munitions work, which entitled them to receive war service badges, they would not be required for service in the field unless the Ministry decided that they were more urgently needed in the Army than for munitions work.

VI. Training in Lead-burning, Gaugemaking and other kinds of Skilled Work.

Early in January, 1916, the Explosives Supply department pointed out that the shortage of qualified lead-burners or chemical plumbers was seriously delaying the erection of the new National Explosive Factories and the erection and repair of Acid Plants throughout the country.³ Although the Ministry was searching the Army, both at home and abroad, for these men, and releasing them when found, few were being obtained in this way. Indeed, normally there were only about 300 or 400 in Great Britain. But it was anticipated that at least 500 more would be required, though after detailed inquiry it was found that this demand was exaggerated, owing to the adding together of all the prospective requirements for new construction, as if they were simultaneous.⁴ The only way to prevent a serious dislocation of the munitions programme was to train sanitary plumbers for this work, much of which was straightforward construction, though repairs might be very difficult. Few jobs, for example, were nastier or more awkward than being suspended in a sling to burn a vertical joint in a sulphuric acid tank. There was no dearth of applicants for training, since lead-burners commanded high wages, but for that very reason they were not likely to welcome new-comers. With the co-operation of the Plumbers' Company, classes were opened at King's College and Brixton. At first, since the plumbers in training were at work during the day, the classes were held at night and on Saturday afternoons; and even then the attendance was apt to be irregular, and the men were tired. Nor could the course be completed in less than three months. In order to expedite the training and make it more efficient, it was decided to give full-time day instruction. But this could not be done unless maintenance grants were

¹ M.W. 93232.

² M.W. 51164/27.

² M.W. 51164/31.

⁴ M.W. 51164/18.

made. The Ministry therefore requested¹ the Treasury, on 28 February, to extend the payment of maintenance allowances, which had been already granted in principle to certain tool-setters, and to authorise the Ministry to pay such allowances to learners under training for skilled operations in cases where the Ministry was convinced that such payments were essential for securing an adequate supply of the labour needed to provide munitions of war. The Treasury gave their consent on 2 March, subject to the condition that when the men, after training, took employment with contractors every effort should be made to recover the cost of training from the contractors.² This condition, however, proved difficult to observe, and on 25 August, 1916, the Treasury agreed to waive it,³ since the men trained were placed only in the employment of National Factories or controlled establishments, and it was inexpedient to insist on any condition which prevented the Ministry from placing such specially trained men to the best advantage.

Similar arrangements were made for training gaugemakers, who were most urgently needed for the National Shell and Projectile Factories. It was believed that jewellers, silversmiths, watchmakers, and other craftsmen accustomed to accurate work might be trained in a comparatively short time to make some of the simpler shop gauges, of which very large numbers were required for the production of gun ammunition.⁴ For this purpose the Ministry decided in February, 1916, to establish special courses at the Birmingham and Aston Technical Schools, Woolwich Polytechnic, South-Western Polytechnic, and the Goldsmiths' College. In London, the co-operation of the Amalgamated Society of Goldsmiths, Silversmiths and Kindred Trades and the London Society of Goldsmiths and Jewellers was secured. The students were mainly drawn from these trades, but the classes were not confined to them. In fact, at Woolwich one of the most successful students was formerly an accountant, and others who made good as gaugemakers described their previous occupation as that of artist, commercial traveller, photographer, actor, walking-stick maker, and master mariner.⁵

The chief special courses in the spring and summer of 1916 were in tool-setting, lead-burning and gaugemaking; but successful experiments were made in other directions. A class for women in acetylene welding was held at Glasgow, and a special course for women tracers at Shoreditch. In Birmingham, on the suggestion of Messrs. Kynochs, men were trained to make some of the tools most in demand for the production of small arms ammunition. Subsequently courses were established for toolsmiths and special kinds of fitting.

¹ M.W. 51164/38.

² Treasury Letter, 4716/16.

³ Treasury Letter, 22039/16.

⁴ See Vol. VIII., Part III., Chap. I.

⁵ HIST. REC./H/325/1.

Between 1 March and 9 September, 1916, 1,160 students, trained for skilled work, were recorded¹ as placed in munition factories.

<i>Class of Work.</i>	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Tool-setters ²	578	6	584
Gaugemakers ²	174	26	200
Lead-burners	205	—	205
Fitters, Toolmakers and others	145	26	171
Total	1,102	58	1,160

In September, 1916, a new departure was made.³ The value of highly specialised training had been demonstrated, and in view of the growing stringency of the labour market, and the increasing demand resulting from the new programmes of construction to which the Government was committed, the Minister felt that only by a wide extension of special training could the difficulty of finding an adequate supply of labour, for aircraft in particular, be surmounted. But for success it was necessary to reproduce in the training centres all the essential elements of workshop practice. The Ministry, therefore, proposed to acquire factories to be used as instructional workshops, where the required training could be given on modern machinery on the actual operations which the workers would have to perform in the munitions factory, and where all the surroundings and conditions of factory life could be reproduced. It would be necessary to pay a maintenance allowance to the students while under training: £2 a week in the case of men, and 25s. a week in the case of women. Those only would be admitted as students who pledged themselves to work wherever their services were required by the Ministry for the duration of the War. The Ministry proposed to begin by taking over Messrs. Straker Squire's factory at Twickenham, under the Defence of the Realm Regulations. They estimated that some 400 men and women would be able to undergo instruction at one time, that the period of training would normally last four weeks, and that the expenditure on maintenance allowance, running expenses, staff, etc., would approximate to £1,500 a week. On 15 September the Treasury assented to this proposal.⁴ Subsequently other instructional workshops were opened in different parts of the country; but the history of this experiment belongs to another volume.

¹ (Printed) *Weekly Report*, No. 60, XVI. (23 September, 1916).

² A census of mechanics employed by firms in the Metal Trades (including the National Shell Factories, but excluding the Royal Factories, Admiralty Dockyards and Railway Shops) gave 7,579 Tool-setters and 2,346 Gaugemakers out of the 693,544 mechanics employed by the firms which made returns for 18 February, 1916.

³ M.W. 51164/38.

⁴ *Ibid.*, Treasury Letter, 23873/16.

VII. Summary of Results. July, 1915, to August, 1916.

Records of the number of students, in training, qualified, and placed in munitions factories, were not kept systematically before 1916. It is estimated, however, that up to 31 August, 1916, about 22,500 students received certificates of proficiency from the Technical Schools, of whom not less than 18,000 were placed. Of these 12,312 were recorded as qualified, and 10,147 as placed in the first eight months of 1916.¹ Probably the number who ultimately obtained munitions work is considerably higher than the figure here given, since those who were not placed directly often failed to inform the Schools when they found employment.

In numbers the high-water mark was reached in March, 1916. But the fall in numbers was far more than compensated by the increasing proportion of students who received special training for work which required a large measure of skill.

The other notable change which took place in the period under review was a rapid increase in the number of women trained. Unfortunately the records do not afford a means of measuring this change statistically. It is estimated that 40 per cent. of the students qualified and placed during this period were women; but in the months of June, July and August, 1916, the proportion was as high as 59 per cent. Women students were admitted to many of the training classes from their inception, and as lodging or hostel accommodation was provided for them by some of the larger firms, many were moved from one part of the country to another. In particular, a large number of women trained at Robert Gordon's College, Aberdeen, where the fish-curing industry was depressed, found work in the Midlands. The Ministry received from many quarters testimony as to the value of the women who had been trained in the Technical Schools, which afforded an easy, if not the only, approach to the factory for those who were unacquainted with machinery and the conditions of factory life.

Until the end of this period little in the way of specialised training was done for women. But gradually the capacity of women for work in some of the higher branches of engineering was recognised, as well as the importance of entrusting the supervision of women operatives to women who were thoroughly conversant with the machines operated. Increasing attention was therefore given to the training of the more intelligent and promising women students in tool-setting and other operations requiring skill, in order that they might act as charge hands and be fitted to undertake other positions of responsibility in the workshops. A great impetus was given to this movement by the Ministry's policy of encouraging to the utmost the employment of women on gun ammunition, and by the great expansion of the programme of aircraft construction, for many processes in which women's labour was not only suitable, as the work was standardised, but essential, if the programme was to be carried out.

¹ See Appendix XIII.

CHAPTER V.

DILUTION.

I. The Economic Conditions of Dilution.

The previous chapters have shown that only a small and quite inadequate reinforcement of skilled labour for the production of munitions could be obtained from the Army and civil work in spite of the energy and money expended on the effort. Experience had in a large measure confirmed the disappointment which followed the first attempts to transfer Munition Volunteers and to release soldiers from the Colours. It was obvious, therefore, that only the most economical use of the skill available in the munition factories and the introduction of unskilled labour for all operations which could be quickly learnt would meet the requirements of the country.

This economy of labour, or Dilution as it has come to be popularly called, was no new thing. It was, in fact, merely an application of the venerable principle of the division of labour. But its rapid development, owing to the circumstances of the War and the strenuous efforts to safeguard vested interests against its effects, have made it the key to the history of Labour in the period under review. It is not possible to explain in detail here what Dilution covered. To do so would require an account of the structure of each industry concerned in the production of munitions, not to mention a large variety of local differences within each industry. Here only an attempt can be made to indicate the main features of the process.

The form which Dilution assumed was due primarily to three facts. First, munitions work for the most part consisted in the production of articles of which very large quantities were required identical in shape, weight and quality. Hence standardised repetition work or mass production took the place of the varied and variable output, characteristic of much British manufacture before the War. Although a high degree of accuracy was essential in most classes of munitions, its attainment depended not on the machine operators, but on the skill of the mechanics who made the tools, fixtures and gauges, set up the machines, and supervised their operation. And even here the specialisation, rendered possible by the extent of the market and necessary by the character of the product, diminished in some degree the need for all-round craftsmanship.

Secondly, finance was at no time a limiting factor in the production of munitions. The division of labour, therefore, was not checked by the expense of installing new machinery, making special arrangements,

for women, or employing them at wages which they could not earn under normal competition. New factories were laid out for the mass production of specific munitions and equipped with machines each designed for a single purpose. Every mechanical device was introduced that could facilitate the handling of weights or render the operation of a machine tool by an unskilled operator fool-proof. Even where such expenditure ultimately resulted in economical production, it could rarely have been undertaken subject to ordinary commercial risks.

Thirdly, there was a large reserve of industrial skill and ability in the country. Skilled workmen were accustomed to carry through complex jobs, only a small part of which required their dexterity or experience. Machinemen competent to set up and supervise the operation of six or ten automatics spent their time on one. Antiquated machinery, conservative habits, a market secure but limited, called for mechanical skill of a high order, though the output was small. To adapt such capacity to new methods of production some training was necessary as well as a great emergency, but the remarkable achievement of the country in the manufacture of munitions, involving as it did a revolution in processes, standards of accuracy, products, output and organisation, would not have been possible but for the energy and skill latent in the working-men.

II. The Distinction of "Skilled," "Semi-Skilled," and "Unskilled."

The reorganisation of industry for mass production cut across many of the accepted lines of demarcation between trade and trade and the various grades of labour within each trade. Many of these lines, indeed, were somewhat blurred; others were drawn differently in different parts of the country. Nothing perhaps afforded so frequent a subject of dispute between the various trade unions. The craft societies regarded the definition of skilled work proper to their members as their palladium won by many years of sacrifice and effort. Skilled work must be done only by the skilled man. The skilled man was the journeyman, who had worked through the shops as an apprentice and gained some experience as an improver. Every skilled man must receive at least the district rate of wages. In defence of these principles the craft unions showed the foresight and disinterestedness of a profession eager to advance its art as well as the narrowness of a class anxious to preserve its privileges. They encouraged a pride in craftsmanship and secured, so far as they could, a general training for those who wished to enter their branch of trade. If sometimes they refused to admit as members competent persons who had not served their time or to surrender work the character of which had been degraded by invention, they protected the common interest as well as their own by resisting encroachments which disguised a blind alley under the pretext of immediate profit.

Ambiguity and prejudice naturally attached to the terms "skilled man" and "skilled work." For men's livelihood turned on their interpretation, which involved an attempt to define and fix what was

continuous and fluid. By a "skilled man" the craft unions meant a man who satisfied their conditions of full membership. But some societies were less exacting in their demands than others, even within the same trade. The essential condition was the completion of an apprenticeship. But the training implied by serving one's time varied widely according to the equipment of the shop, the range of work done in it, and the interest of the management in the instruction of their apprentices. "Skill," therefore, as the trade unions used the term, was no guarantee of genuine craftsmanship. Rather it answered to the taking of a degree or the passing of a qualifying examination in one of the professions. Employers, on the other hand, as a rule, meant by skill either excellence in some specific operation, especially the ability to do very accurate work, or else the general competence of an experienced tradesman. Thus a "skilled man" has been defined by a high authority¹ as "a man capable of undertaking any job in his branch of the trade, able to work to drawings, to prepare his tools, to set up his machine, and to turn out a satisfactory job from start to finish."

The term "skilled work" was still more ambiguous. From the trade unions' point of view it meant work which was claimed for the "skilled man," and where the unions were strong done by no one else. From the employers' point of view it meant work which only a very dexterous, ingenious or experienced craftsman could do. The latter was obviously narrower than the former. The unions, haunted by the spectre of unemployment and as tenacious of vested interests as any other corporate body, were reluctant to surrender any work which custom or negotiation had secured for their members. On the other hand, mechanical inventions, keener competition, and wider markets tended to increase the subdivision of complex jobs into separate operations, which could be mastered by unskilled labour after but little training.

Progress in the mechanical arts consists in the substitution of the machine for the hand, and therefore, so far as any specific product is concerned, in the displacement of skilled labour. No doubt every mechanical improvement involves a new demand for skill somewhere. The most complex automatic machines require the most dexterous, intelligent and experienced craftsmen to design and construct them, to set them up and keep them in order. But the new demand may not absorb the labour displaced. Rapid progress in invention inevitably consigns much manual skill to the scrap heap, and unless it is accompanied by a great expansion of markets may result in widespread misery to craftsmen of no more than average ability, and especially to those who are no longer mobile and adaptable. Thus the craft unions were governed by two motives, always opposed, sometimes contradictory—pride in their craft and desire to advance it on the one hand, and on the other the protection of the livelihood of their members. The solution of the antinomy appears to lie partly in improving the

¹ Sir Alfred Herbert, *Report of the Committee on Women in Industry*, 1919, Vol. II., p. 54. Cmd. 167.

general education and technical training of the apprentice so as to secure greater adaptability in the craftsman, partly in giving the workmen greater responsibility for the distribution of labour in the workshop.

The relation of the skilled man to dilution has occupied the attention of the public, because the success of the policy depended primarily on securing not only his acquiescence but his active support, and his position was strongly entrenched in the organisation of the craft unions. Consequently, the early negotiations between the Government and Labour were confined to safeguarding the status of the skilled man by providing that the introduction of other classes of labour on to skilled work should not affect adversely the time-rate of the district or piece-work prices, and by confining under the most solemn pledges all such changes of workshop practice to the period of the War. But the position of the semi-skilled man was no less compromised by dilution. The term "semi-skilled" belongs to the engineering trades, and is there applied to an operator, who, though he has not served his time and worked through the shops as an apprentice, yet has had sufficient experience to enable him to do any class of work falling within the range of a particular machine without much supervision or to undertake certain limited work at fitting or other engineering processes. He is a specialist without the general training of the craftsman. As applied to the man in this way the distinction between skilled and semi-skilled is fairly clear, and would be quite definite if apprenticeship meant all that it ought to mean. But as applied to work the distinction is often arbitrary and uncertain. Normally, the operation of machines of certain types is considered semi-skilled work; but there is a wide borderland where the semi-skilled operator, by virtue of his dexterity or knack and experience, might produce more and better work than a skilled man, and not infrequently the skilled man prefers to work a semi-skilled machine owing to the high piece-work earnings which it makes possible. Moreover, although every workshop must have a number of mechanics who can undertake anything within a wide range, yet, since progress involves increasing specialisation, the bulk of the workmen in a large and well-organised factory will be confined within a small circle of operations where natural aptitude counts for more than a general training.

At the other end of the scale the distinction between "semi-skilled" and "unskilled" work was similarly uncertain. Apart from labouring, the term "unskilled" was applied to process work which could be learnt by a new-comer after a few days' practice. It comprised simple repetition work on automatic machines, or machines so rigged up with jigs and fixtures that the operation of them was virtually automatic, requiring of the operator no more than attention and facility. But, given a wide enough market, nearly every complex mechanical process can be subdivided into simple operations, each of which can be performed on a machine designed solely for that purpose. Thus, so far as the product is concerned, the distinction between semi-skilled and unskilled work tends to disappear. Moreover, not a few of the

machines operated by semi-skilled labour are of so simple a character that only a very short training is necessary in order to operate them successfully.

III. The Principal Characteristics of Dilution.

Dilution involved four things which were interdependent—the subdivision of processes, the installation of specialised machinery, the upgrading of existing labour, and the introduction of new labour.

(1) Processes, which in the first year of the War were carried out as single jobs by skilled men, were subdivided. Sometimes the roughing out was separated from the finishing, as, for example, in the production of tools and gauges. The skilled man was set free for work which he alone could do, but at the same time his job became more exacting, since the strain of working to very fine limits was continuous. Frequently the setting up of an automatic machine or a capstan lathe was divorced from the operation of it, and the skilled or semi-skilled man was enabled to supervise a group of similar machines. Or again, a job that involved a great variety of manipulation was split up into a number of simple operations, which were performed by different operators carefully trained for their parts on machines designed or specially rigged for the purpose, the work being gauged after each operation. In this way the parts of complex and delicate mechanisms which, in the early days of the War, skilled men had not been able to produce without a large percentage of rejections were manufactured in thousands with little waste of material. The skill of the mechanic was confined to the making of gauges, the preparation of tools, the maintenance and repair of machinery, the training and supervision of unskilled labour; and by ever-increasing specialisation greater accuracy and efficiency were attained. Indeed, specialisation in time rendered possible a further invasion of the mechanic's province, and the simpler forms of tool-setting and tool-room work were successfully performed by the more intelligent and dexterous of the operators. In the later years of the War, shell, as is well known, was universally made in this way, supply having become so abundant that the Ministry was able to refuse contracts to firms which failed to satisfy its standard of dilution.¹ But the principle was applied to work which required more exacting workmanship. Thus at a factory in Yorkshire, devoted entirely to the breech mechanisms of guns of various types and sizes, the lathes and other machines, numbering 175 in all, were operated by women, the operators setting up their own work and grinding their own tools. The hardening of tools was done entirely by women. Over 70 per cent. of the

¹ On 29 November, 1916, Boards of Management were informed that in future the following clause would be inserted in all contracts for shell from 2.75 in. to 4.5 in.:—"It is a condition of this contract that not later than 31 March, 1917, at least 80 per cent. of the operatives employed in the execution of this contract shall be women. The expression 'operatives' shall include all those employed in unloading and loading, handling, machining, painting and varnishing, assembling, production and setting of tools, charge hands, viewers and staff employed in repair and maintenance of machinery and on inspection." In respect of larger shell the conditions were less stringent. 94/Gen. No./577.

labourers on the pay roll of the factory were women, and the work of fitting and assembling the mechanisms was also very largely entrusted to the hands of women.¹ Success was due to the intensive training of the operators, the systematic arrangement of the machining processes, and the fact that the work passing through the shop was sufficient in volume and continuity to permit the concentration of each operator on a few operations.

(2) The War resulted not only in the equipment of a large number of new factories, but in the re-equipment of many old workshops with machinery, much of which was designed for a single limited purpose. Throughout the War the machine tool trade was working at very high pressure. When the demand for shell and gun lathes was met machinery for aircraft took its place. Precision machines for the tool-room were also in unprecedented demand. Firms, accustomed to make machine tools of various types to order, specialised on the lines for which they were best fitted, with a much greater output in consequence. In addition, large numbers of automatics and other tools were imported from America. Moreover, old and new machines were fitted with every sort of stop, jig or appliance that could be devised to make them fool-proof. Many of these were evolved by the local craftsmen to meet the peculiarities of the machines in use and the novel product being turned out. Finally, all kinds of mechanical devices were invented to lighten the operation of old-fashioned tools and to facilitate the handling of weights. Hitherto not only had a man's strength been assumed for all general labouring, but want of capital or imagination had resulted in the spending of muscular effort on work which machines could do better. Now runways and cranes of all sorts were freely introduced. Particular attention was devoted to the layout of the new workshops, and to the most economical methods of getting the work to and from each machine in its proper order. For work which must be done by hand, the unit of weight or bulk was, if possible, reduced in order to make good the shortage of male labour by employing women.

(3) The principle of upgrading may be formulated as follows :— No person shall be employed on any work the performance of which requires a less degree of skill or usefulness than that which he or she possesses. This is, no doubt, an ideal not attainable in practice. If an organisation is large, many misfits are unavoidable. A greater responsibility is thrown upon a few than their superior capacity warrants; and many are relegated by rule to jobs which afford no scope for their ability. Great organisations require super-men to direct them. But there are no super-men; and if there were, no sphere of action would remain for the free and originaive man of normal parts. If, on the other hand, an organisation is small, it is subject to the caprice of circumstance, and the division of labour conducive to maximum productivity is not attainable. All human arrangements have the defects of their qualities. But in time of war the production of what is necessary for the safety of the country

¹ *Dilution of Labour Bulletin*, May, 1917, p. 105.

outweighs all other considerations, and the relative simplicity of the end in view diminishes the risk of miscalculating what is required.

An account in detail of the upgrading which took place during the War in all classes of munitions work cannot be attempted here. Not only was the variety of work immense, but the action taken depended on particular openings and individual aptitudes rather than on general policy and class qualifications. But, broadly speaking, highly skilled men were required in great numbers to supervise and train unskilled labour and set up their work; to design and prepare tools, jigs and gauges; to erect new and adapt old machinery and maintain it in running order; to fit and finish the more complex and delicate mechanisms, such as guns and aircraft engines, and to inspect and test the work done. The organisation of night shifts and the staffing of so many new factories and workshops involved a great drain on a body of men already depleted by recruiting. And of these relatively few had been accustomed before the War to work to the fine limits essential in most munitions work. It was necessary, therefore, to withdraw skilled fitters and turners from production for supervision and toolroom work, their places being taken when the operations were varied or difficult by men of less intelligence or dexterity or by improvers and the older apprentices. Competent capstan hands and other machine men became charge hand tool-setters. Experienced millwrights' and fitters' helpers undertook greater responsibility in the erection and repair of machines. Rough fitters and machine men were recruited from labourers. Similarly, as the newly introduced labour proved its ability, it was promoted as opportunity offered. Moreover, lines of demarcation between allied trades were broken down. Plumbers undertook the easier work of coppersmiths, and carpenters that of shipwrights. It must not, of course, be supposed that a general post took place in the munitions factories. To be effective the process was necessarily gradual and slow; and much work was of such a nature, in particular accurate, varied, heavy or responsible work, that no advantage could have been obtained by transferring those who were engaged upon it elsewhere.

(4) The introduction of new labour into the munitions industries was modified by the crisis in recruiting in the winter of 1915. Throughout the summer and autumn of that year dilution was advocated solely as a means of increasing production. Not only was it denied that the purpose of dilution was to set free for service in the field skilled or semi-skilled men employed on munitions, but unskilled men were urged to take up munitions work without too close an inquiry whether they were of military age and fitness or not. The possibility of employing women in large numbers in the machine shops, much less on general labouring, was scarcely envisaged. It was generally assumed that light repetition work on fool-proof machines marked the limit of their capacity or usefulness. The dominant idea in the popular imagination was the shortage of munitions and the necessity of making this good by every means possible. But Lord Derby's recruiting campaign in November, 1915, altered the

situation, and brought home the fact that every fit man who could be spared must take his place in the fighting line. Wherever practicable, women must undertake the work of men. Consequently, the Dilution section of the Ministry, which was organised at the end of 1915, from the first regarded the introduction of female labour as the cardinal factor in its administrative policy¹; and as the drain on the man-power of the country increased, this feature of dilution was more and more pronounced, until dilution became practically synonymous in common speech with the introduction of female labour. At the same time boys in very large numbers were brought into the munitions factories. They were easily attracted by the high earnings, and many employers preferred them to women and girls, more particularly where the nature of the work or the equipment was such that separate shops could not be allocated to female labour. They did not involve the expense of special accommodation; in their case exemption was obtained with less difficulty from the provisions of the Factory Acts in respect of overtime and night work; and their employment was less likely to meet with opposition from the foremen or the skilled men.

IV. The Employment of Women.

In the course of the first year of the Ministry's existence more than half a million persons entered the munitions industries, of whom nearly one-half were women and girls.² The rate at which female labour was introduced increased very rapidly in the last six months of this period.³ No figures exist to show in what manner these women and girls were employed, since the Board of Trade returns relate only to their industries, and afford no clue to their occupations. But the latter fall in the main into five groups—machine operating, viewing and gauging, filling gun ammunition, light labouring, and clerical work. A large proportion of the women were returned as directly replacing males. But this statement is subject to the qualification that to a large extent the women were employed in new factories specially equipped for the purpose,⁴ and the work which they did was more or less modified to suit them. Women were valuable in munitions work as substitutes for men who were up-graded or joined the Colours, but

¹ Thus the *Dilution of Labour Bulletin*, October, 1916, said: "The dilution of labour implies that the employment of skilled men should be confined to work which cannot be efficiently performed by less skilled labour or by women; that women should be employed as far as practicable on all classes of work for which they are suitable; that semi-skilled and unskilled men should be employed on any work which does not necessitate the employment of skilled men and for which women are unsuitable."

² See Appendix I.

³ See Appendix I., Table B III.

⁴ For example, 71,000 females were returned as employed in Government Factories in July, 1916, as compared with 2,000 in 1914, and 69,000 were reported as directly replacing males. Board of Trade *Report on the Increased Employment of Women during the War*, July, 1916.

the reinforcement of male labour was their principal service, without which the new shell, fuse, explosive and filling factories could never have been manned.

The controversy over the employment of women on skilled work and the obstinacy with which this form of dilution was fought have obscured the fact that for the most part women were introduced without serious opposition to perform repetition work, simple machining and fitting operations or light labouring. Some remarkable work was done by women, though the bulk of the products which excited the admiration of the public resulted from the novel methods of production rather than from the craftsmanship of the producers. No doubt many women might become skilled mechanics, given the necessary training and experience. But these were precluded by the conditions under which munitions were manufactured. Intensive training sufficed to meet the emergency of the moment, but it was no substitute for a thorough apprenticeship; and the apprentices who were up-graded under schemes of dilution suffered like others from premature specialisation.

Subject to this limitation, there were few branches of skilled work which some women did not execute with success. They made tools and gauges to the finest limits, they set up complex automatics, they machined and fitted the most delicate mechanisms, they inspected the rifling of guns and mastered the use of the micrometer and vernier, they conducted scientific tests in the laboratory, they acted as charge hands and forewomen. Nor can it be doubted that they might have been more extensively employed on skilled work but for the provision that a woman employed on part of the work customarily done by a fully skilled tradesman should be paid his time-rate after a probationary period of three months, subject to a deduction not exceeding 10 per cent. to meet the additional cost of setting up or skilled supervision, and to the condition that no woman should be called upon to serve more than one probationary period.¹ This provision limited the employment of women on skilled work, partly because employers considered that 10 per cent. did not nearly meet the extra cost involved, partly because a change in the product or the design rendered the specific skill acquired by the woman useless but prevented her continued employment while she was learning a new process except at the skilled man's rate.

On light repetition work, the bulk of which was enormous, women achieved notable success and made a large contribution to victory. Light shell and fuses, small arms ammunition and the numerous small components which enter into the production of munitions were almost entirely the work of their hands, and they made a large part of the medium and heavy shell and of aircraft in the later years of the War. New standards of output were established; and after full allowance has been made for improvements in the methods of manufacture and the effect of Mr. Lloyd George's pledge that piece-work prices should not be reduced no words of admiration can do justice to

¹ See Vol. V., Part II., Chap. III., Sect. III.

the sustained effort which resulted in so enormous a volume of production in spite of the monotony of performing the same operation many times every hour month after month and year after year.

In the National Filling Factories the great majority of the operatives were women. The work was not for the most part difficult or exhausting, but there was the constant danger of an explosion, and in certain processes some risk to health and temporary disfigurement. In the Government Explosive Factories nearly half of the employees were women, for whom much of the plant was specially designed.

Perhaps the greatest innovations, certainly in appearance, were made by employing women on general labouring. As shop and yard labourers, loading and unloading trucks, wheeling, packing, crane-driving, scraping flues and boilers, stoking and trimming coal, painting ships, working in foundries and retort-houses, in chemical works and tanneries, women undertook the heavy, hot, dirty and disagreeable work of the able-bodied labourers who had joined the Colours. This work was not economical, since two or more women were often needed to do the work of one man, and it threw the heavier and more difficult jobs on to the men who were left. But it did honour to the women who volunteered for the work and rendered a great service to the country by extending its man-power; nor should it be forgotten that the men as a rule showed much consideration for the women, helping them freely and taking the harder part without grumbling. This form of dilution was only rendered possible by the adoption of suitable clothing, by team work, by using mechanical devices for lifting and handling, and by reducing the units of weight and bulk. The effects of strain and exposure were counteracted by the relatively high wages and the provision of canteens.

Finally, women were introduced in large numbers as substitutes for men clerks in munitions establishments as elsewhere. For type-writing, stenography and the routine work of the counting-house substitution was obvious; but where technical knowledge was required dilution was more difficult, unless the work was on a scale which admitted of subdivision and specialisation, and it sometimes imposed an almost intolerable burden upon managers and heads of departments.¹

V. The Legal Powers of the Ministry in Respect of Dilution.

The legal powers of the Ministry for the enforcement of dilution were conferred by Section 4 (3) of the Munitions of War Act, 1915, and Regulation 8A made under the Defence of the Realm (Amendment) No. 2 Act, 1915, as amended by Section 10 of the Munitions of War Act.² The former provision applied only to controlled establishments, and ran as follows:—

Any rule, practice, or custom not having the force of law which tends to restrict production or employment shall be

¹ For list of processes upon which women were employed, 1 June, 1916, see Appendix XV.

² For the history of this provision see Vol. I., Part. II., Chap. III., Sect. IV., and Part IV., Sect. VIII.

suspended in the establishment, and if any person induces or attempts to induce any other person (whether any particular person or generally) to comply, or continue to comply, with such a rule, practice, or custom, that person shall be guilty of an offence under this Act.

If any question arises whether any rule, practice or custom is a rule, practice or custom which tends to restrict production or employment, that question shall be referred to the Board of Trade, and the Board of Trade shall either determine the question themselves, or, if they think it expedient or either party requires it, refer the question for settlement in accordance with the provisions contained in the First Schedule to this Act. The decision of the Board of Trade or arbitration tribunal, as the case may be, shall be conclusive for all purposes.

This provision, it will be observed, is directed against persons who induce or attempt to induce workmen to comply with restrictive rules, practices or customs, and neither against the workman who complies with them nor against the employer who refuses to alter them. At first sight it might appear that Section 4 (5) gave the Ministry all the coercive power they required in order to secure the adoption of schemes of dilution.

The employer and every person employed in the establishment shall comply with any regulations made applicable to that establishment by the Minister of Munitions with respect to the general ordering of the work in the establishment with a view to attaining and maintaining a proper standard of efficiency and with respect to the due observance of the rules of the establishment.

If the employer or any person so employed acts in contravention of or fails to comply with any such regulation, that employer or person shall be guilty of an offence under this Act.

It was held, however, that the power conferred by this subsection was limited to workshop rules on such matters as time-keeping and proper conduct in the works, and did not extend to the coercion of the employer if he refused to carry out a scheme of dilution prescribed by the Ministry. From the general structure of the Act it was argued that if subsection (5) had been meant to cover dilution there would have been no virtue in subsection (3), which on the face of it gave power to get rid of restrictions on production and employment. Moreover, dilution would not necessarily promote efficiency; and even if it did, it would not be invented for that purpose, but simply to make good the shortage of skilled labour.¹ Section 4 (5), therefore, was not used to promote dilution, except that under it the following rule was approved by the Minister, making it an offence subject to a penalty of £3 for any employee in a controlled establishment to insist on the observance of any restrictive practice.²

¹ See Mr. Wolfe's evidence before Mr. Justice McCardie's Committee of Enquiry on Labour Embargoes, 29 August, 1918.

² See Vol. IV., Part II., Chap. I., Sect. IX.

No person employed shall insist or attempt to insist on the observance, either by himself or by any other person employed, of any rule, practice, or custom tending to restrict the rate of production on any class of work, or to limit the employment of any class of person, or otherwise tending to restrict production or employment.

Much wider powers were conferred by the Defence of the Realm Regulations, which applied without qualification to any factory or workshop. Clause 8A of those Regulations, so far as is material, was as follows :—

It shall be lawful for the Admiralty, Army Council, or the Minister of Munitions

(a) to require any work in any factory or workshop to be done in accordance with the directions of the Admiralty, Army Council, or the Ministry of Munitions, given with the object of making the factory or workshop or the plant or labour therein as useful as possible for the production of war material, and to require returns as to the nature and amount of work done in any factory or workshop ;

(b) to regulate or restrict the carrying on of any work in any factory, workshop or other premises, or the engagement or employment of any workman, or all or any classes of workmen, therein, or to remove the plant therefrom, with a view to maintaining or increasing the production of munitions in other factories, workshops or premises, or to regulate and control the supply of metals and material that may be required for any articles for use in war ; and the occupier and every officer and servant of the occupier of the factory, workshop or premises, and any other person affected by any such directions, regulations, or restrictions, and where the occupier is a company, every director of the company, shall obey the directions, regulations, or restrictions of the Admiralty, Army Council, or the Minister of Munitions so given, and if he fails to do so he shall be guilty of an offence against these regulations.

In so far as legal powers of coercion were of any use for the promotion of dilution, these regulations provided for every contingency with one important exception. They gave the Ministry no power to transfer a workman to the place where he was most needed. But they left the employer no choice whether he would carry out a scheme of dilution or not, if the Ministry ordered him to give effect to it. These powers, however, so far as the regulation of work and employment were concerned, were not used at all until the end of 1917 ; and they were only exercised on a considerable scale in connection with the embargo on the engagement of skilled labour, which was imposed on a number of firms in the summer of 1918. But, although they were held in reserve, the knowledge that the Ministry possessed them no doubt acted as a powerful lever in securing the execution of its recommendations.

Dilution, however, was too delicate an operation to attempt to carry through by coercive methods. Although the Ministry inspected firms that were not controlled and suggested schemes of dilution, it issued instructions to proceed with such schemes only to controlled establishments. For the legal suspension of restrictive practices was confined to them, and they only were legally bound to restore after the war what was suspended. Control, in fact, was the price paid for dilution. Moreover, as Mr. Lloyd George promised¹ on 25 March, 1915, the relaxation of trade practices related only to work done for war purposes. Elsewhere, therefore, dilution was a matter of voluntary agreement between an employer and his workmen.

But even in controlled establishments reluctance to carry out the Ministry's wishes was very difficult to overcome. In order to succeed, dilution required the willing co-operation of the management, the foremen, and the skilled workmen. Even a neutral attitude on the part of any of these would cause a scheme technically feasible to fail. But the workmen were suspicious of dilution almost everywhere, if not actively opposed to it, and many of the foremen were hardened in prejudice. An obstructive employer, therefore, had easy ground to work upon. Moreover, if his output was urgently required, as it was almost sure to be, he could appeal to the supply department concerned for its support. These tactics rarely failed. For deliveries were so much in arrear that the department, even if it honestly attempted to take wide and long views, could hardly fail to regard the retardation of its own work as little short of a disaster. Considerable as this difficulty was in respect of supplies for which the Ministry was responsible, it became almost insuperable where another Department of State was concerned. For, in theory at any rate, the Ministry could determine the relative urgency of its own supplies, but in respect of naval armaments or aircraft no criterion was available except a reference to the Cabinet or War Committee, and they could only be invoked rarely and on issues of the highest importance. Consequently patience, persuasiveness, tact, technical mastery of the problems to be solved, and the communication of what had already been achieved, were better calculated to promote the policy of dilution than drastic action, threats of prosecution and the exercise of coercive powers.

VI. The Attitude of the Skilled Men to Dilution.

An account has already been given of the negotiations preliminary to dilution with the trade unions, and of the conditions under which they agreed to the suspension of all rules, practices and customs restricting production or employment.² These conditions were in principle determined at the Treasury Conference, confirmed by the Munitions of War Act, 1915, elaborated by the Central Munitions Labour

¹ At the Treasury Conference with the Amalgamated Society of Engineers; see Vol. I., Part II., Chap. IV., Sect. II.

² See Vol. I., Part II., Chaps. II. and IV., Part IV., Vol. IV., Part I., Chaps. III. and IV. The conditions are specified in the Second Schedule to the Munitions of War Act, 1915.

Supply Committee, and set out in Circulars L.2, L.3 and L.6. Such powers as were necessary to make the recommendations in these circulars mandatory were conferred on the Ministry by the Munitions of War (Amendment) Act, 1916.

From the outset the representatives of the trade unions urged that the benefits resulting from the relaxation of their restrictions should not enure to private individuals, but only to the State. Although the Government were not prepared explicitly to limit dilution to establishments whose profits were controlled, yet in practice the administration of the policy of dilution was confined to such establishments, since the legal suspension of restrictive customs and the legal obligation to restore them after the War and to observe the other conditions agreed at the Treasury Conference were made co-extensive with the control of profits by the Munitions of War Act.

The most complex of these conditions, and that which involved the greatest difficulties and anomalies in administration, naturally related to wages. The trade unions were resolved to maintain the standard rates of the skilled men. It was therefore provided that if semi-skilled men were upgraded, they should receive the rates of the district for the class of work which they undertook. Similarly, piece-work prices must not be affected adversely by the relaxation of existing demarcation restrictions or the admission of semi-skilled or female labour.

The principle of the former of these provisions was extended to women by Circular L.2, which laid down that "in the case of women employed on work customarily done by fully skilled tradesmen . . . the women shall be paid the time-rates of the tradesmen whose work they undertake." But this did not settle the question how a woman should be paid, if the skilled man's job was split up, as usually happened, and the woman performed only a part of it. After negotiations extending throughout 1916, this matter was settled by the provision that in such a case the woman should serve a probationary period of three months, at the end of which she should receive the skilled man's rate, subject to a deduction of 10 per cent. to cover the extra cost of setting up or skilled supervision. This arrangement, as has been explained above, limited the introduction of women to perform "skilled work."¹

The guarantee of piece-work prices involved difficulties of another kind. The facilities for production were greatly increased during the War, and the run on work of the same kind was more continuous. Hence, quite apart from any question of pre-war restrictions on production, the output of many piece-workers, admitted under schemes of dilution, far exceeded all previous records, and their earnings naturally excited the jealousy of the skilled time-workers, who maintained their machines in order, prepared their tools, or were otherwise largely responsible for their efficiency. Others, again, who were suitable for transfer as War Munition Volunteers to more exacting work could not be moved, because their earnings being guaranteed the wages

¹ See p. 82.

to which they were entitled would have caused trouble in the shops where they were wanted. If it had been possible to set up at the beginning tribunals for adjusting piece prices which commanded the confidence of the trade unions these difficulties might have been much diminished, without impairing the stimulus to production which the guarantee against cutting piece prices undoubtedly supplied.

The trade unions not only protected standard rates and existing piece prices, but they also endeavoured to safeguard the individual workman against the risks incident to the reorganisation of the workshop. It was therefore provided that, where the men who ordinarily did the work were adversely affected by the relaxation of demarcation restrictions or the admission of semi-skilled or female labour, adjustments should be made so that they could maintain their previous earnings. This provision was designed to protect the interests of piece-workers who were concentrated on the more awkward jobs, such as hole and corner work in ship construction, instead of taking the rough with the smooth as in normal times. A more general provision was made by Circular L.3, which became mandatory on 24 February, 1916, and ran as follows :—

“Where skilled men are at present employed they shall not be displaced by less skilled labour, unless other skilled employment is offered to them there or elsewhere.”

Due consideration was not always given to the absorption of the skilled men displaced by dilution, and this led to trouble more than once. Such mistakes were apt to occur owing to the division of responsibility between the employers and the Ministry.

All these arrangements were directed to one end, the preservation of the skilled man's status and interests. But the time-rates of the semi-skilled and unskilled men were not protected by the Treasury Agreement or the Munitions of War Act, although they were primarily threatened by the admission of female labour. Not only were the craft unions predominant at the Treasury Conference, but no one foresaw the wide extension of women's employment, and it was generally assumed that they would in the main be engaged on repetition work and paid by results. It soon became clear, however, that before much progress could be made with dilution the time-rate of the women placed on men's work must be settled. Consequently, Circular L.2 was drawn up prescribing for them £1 a week and developing the principle of equal pay for equal work on systems of payment by results.

The admission of women to work customarily done by men was regarded with suspicion, because it was felt that in so far as women performed such work economically they would permanently displace men by underselling them. This fear appears to be well founded, since women are prepared to take work at rates at which men cannot, and experience has proved that where mass production is practicable there is a considerable range of work in the metal and wood-working industries which women can perform with success. The Government attempted to allay this apprehension by undertaking that any practices

suspended during the War should be restored at its close. But many workmen suspected that this pledge would be evaded, and some colour was given to the suspicion by the omission to provide in the Munitions of War Act adequate means for enforcing restoration after the War. This omission was rectified by the Amendment Act of 1916. But it was still felt by some that the legal obligation to restore suspended practices was not as strong as it ought to be ; and others maintained that however the law might stand innovations endorsed by experience must permanently invalidate the pretensions of the craft unions.

With a view to restoration it was provided that a record of the nature of the departure from the conditions prevailing when the establishment became controlled should be kept. The attention of controlled firms was directed to this provision in October, 1915, when the Ministry began to press for dilution, and a form of record was drawn up.¹ But for some time records were not kept satisfactorily. It was essential that the statement of fact in such records should be agreed by the workmen or their representatives. At first the responsibility for seeing that this was done was left to the National Advisory Committee and the local Labour Advisory Boards. But this arrangement did not work well because the local boards had little experience in drafting, no proper offices, and not much interest in routine administration. In September, 1916, therefore, the Ministry set up machinery for obtaining records locally, and arrangements were made at headquarters to systematise the work and bring pressure to bear if necessary. At the same time the controlled firms were instructed not to limit their records to departures made since the date of control, but to include all changes in working conditions made since the outbreak of War.²

Great importance was attached by the trade unions to the provision that due notice should be given to the workmen concerned wherever practicable of any changes of working conditions which it was desired to introduce, and opportunity of local consultation with the men or their representatives should be given if desired. The procedure was specified in greater detail in Circular L.6, to which the Ministry directed the attention of employers when recommending any scheme of dilution. Many changes, however, were made without proper notice and consultation, and, even if they were acquiesced in at the time, they contributed in no small degree to intensify the unrest which broke out in 1917. It was not possible, and perhaps not desirable, that officers of the Ministry should actually superintend the carrying out of dilution. Moreover, the risk of deviation from the prescribed procedure was increased by the division of functions within the Labour Department, whereby the technical part of dilution was in the hands of one section, and what may be called the "political" part in the hands of another. Dilution might, perhaps, have been carried out with less friction if more attention had been given by the Ministry to the development of the procedure prescribed in Circular L.6.

¹ Circular C.E. 2.

² Circular L.65. M.W. 114203/4.

No small part of the success of the Clyde Dilution Commission was due to their practice of bringing employers and workmen into joint consultation on schemes of dilution and the difficulties resulting from it; and the Tyne Dilution Commission was instrumental in setting up a Dilution Committee at Elswick, which was conspicuously successful in its handling of a very large and complex problem.¹

Such were the conditions under which the trade unions agreed to make dilution possible by suspending their customary restrictions on employment. But before the policy of dilution could be carried out the active co-operation of the workmen was essential. Those whom it was necessary to displace must be prepared to enrol as War Munition Volunteers, and those who were left must be ready to give every assistance to the new-comers.

The chief instrument in the hands of the Ministry for effecting dilution was its power to transfer Munition Volunteers; and the extent to which it was enabled to work out its policy was limited by the willingness of the skilled men to enrol. For employers, as a rule, were able to resist the recommendations of the Ministry so long as they could obtain all the skilled labour they wanted. Moreover, unless the skilled men displaced by dilution could be transferred by the Ministry to work where they were most urgently needed, they were not unlikely to find employment less valuable to the country than that from which they had been removed. For, although the Labour Exchanges were instructed to give priority to certain firms, it was quite easy to get work in other ways. Thus the Munition Volunteer Scheme enabled the Ministry to dilute, and to make the best use of the labour set free by dilution. But enrolment involved a considerable sacrifice from many men. Although their earnings were secured, they might be sent far away from their homes to districts where lodgings were dear and uncomfortable, manners strange, and their reception unfriendly. Under these circumstances unwillingness to enroll was not uncommon, especially among the older men. But the army of 100,000 which volunteered in the summer of 1915 proved a most useful asset, and in many districts the Local Labour Advisory Boards rendered valuable assistance in canvassing the men who, in their opinion, ought to go first.

However feasible a scheme of dilution might be technically, it could not succeed unless the skilled men who remained were ready to train the new-comers and help them in every way. It was easy enough to obstruct dilution without resorting to a strike, simply by leaving the inexperienced workers to make mistakes and damage their machines or turn out scrap, not to mention the petty annoyances and discouragements which malice could devise. Persons would not be wanting to lay the blame on the scheme, and the real reason for its failure might be difficult to ascertain. For success the co-operation of the skilled men was essential. The output of munitions is the surest proof that they did their part.

¹ For the constitution and functions of this Committee see Ministry of Labour's Industrial Reports, No. 2. *Works Committees*. Appendix II. (E).

VII. The Attitude of the Employers to Dilution.

Dilution was almost as unpopular with employers as with workmen. This is perhaps surprising. In the early months of the War the employers' federations had taken the initiative in pressing for the relaxation of those trade union practices which stood in the way of dilution. The explanation is probably to be found in the dislike of interference by a Department of State, and in the fact that the dilution officers were, as a rule, seeking skilled men for transfer.

The Ministry's object was twofold, to increase the efficiency of the establishment inspected and to obtain the men necessary for starting new factories and reinforcing those which were engaged on the most urgent work. Since the demand for labour on priority work always greatly exceeded the supply, the latter purpose tended to overshadow the former, and in any case the employer's point of view and the Ministry's naturally differed. Employers were always reluctant to part with skilled men, even if it was not open to question that their transfer would not impair the execution of the contracts in hand. For they might be indispensable in order to effect the change over to another class of work. Many firms, for example, accepted orders for shells in 1915, although they were not specially suited for such work. But if they retained only such a proportion of skilled labour as was necessary for shells, they would be unable to take new contracts for which their equipment and experience were better adapted. Moreover, they could never lose sight of the return to normal lines after the War; and although they were bound to reinstate any of their men who might desire to return, the men who were released might prefer not to come back. The Ministry, on the other hand, was bound to consider the problem from a national point of view, and to transfer every available man to work where the shortage of skilled labour was the limiting factor in production.

Further, it was open to argument, especially in the first year of the Ministry's work when dilution was experimental, that some of the new methods would result in a permanent diminution of output, if indeed there was any output at all. But, starting from the simpler processes and recording the results attained by the more progressive firms, the Ministry soon accumulated a body of evidence which proved beyond question that large schemes of dilution were practicable which would not retard but accelerate production. In many cases, indeed, dilution involved nothing new, but merely the adoption of methods applied with success by firms which before the War had been accustomed to turn out standardised products. But, as has been pointed out, the pressure for output was so great, and the demand so far exceeded the possibility of supply, that it was imperative to go slowly and rely on persuasion rather than coercion. Moreover, great care was necessary in adapting the general principles of dilution to circumstances. Differences in machinery, differences in scale of production, differences in respect of accommodation and room for extension, all affected the employment of women. Strict rules for the manufacture of a specific class of munitions could not be insisted on

unless, as in the exceptional case of light shells in the last two years of the War, the manufacturing capacity of the country exceeded the demand or the amount of steel available. As a rule, dilution could only be effected by an elaborate investigation of particular works and the individual consideration of the machines and the men concerned.

In 1916 the recommendations of the Ministry were constantly opposed on the ground of expense. The introduction of women would involve special accommodation and wages beyond what they could earn. It was doubtful how long the War would last, what increase in cost dilution would mean, whether contracts could be renewed on favourable terms. Occasionally the restricted site of the factory precluded the necessary arrangements. But experience soon proved that if dilution should involve additional expense, it could be thrown back upon the State. Capital expenditure was usually paid out of excess profits; contracts were sometimes modified to meet an increased wages bill. But even if neither of these expedients was practicable, the demand for munitions was so insistent and comprehensive that it was not difficult to make good any loss out of subsequent orders.

Many employers, again, resisted dilution because they feared trouble with their workmen. Even if a strike was improbable, a sullen and suspicious temper might be provoked. Some would no doubt have preferred the Ministry to undertake the whole responsibility of carrying out its schemes. But this would have involved not only a very large staff, but also a dual control which could hardly have made for efficiency. For dilution was not a process which could be effected at one stroke, but required continual readjustment. There was no practicable course midway between taking the works over altogether and leaving to the management the responsibility for giving effect to the Ministry's recommendations.

The most powerful incentive to dilution was an actual or threatened shortage of labour. As the War went on, firms found it more and more difficult to make good any losses they might suffer through the calling up of men for military service or in other ways without the assistance of the Ministry. But the Ministry refused to help unless it was assured after investigation that the best use was being made of the men already employed. The verification of demands frequently led to their cancellation, and almost always to their diminution. Or, again, the Ministry might create a shortage by transferring those who had enrolled as War Munition Volunteers or by removing soldiers who had been released from the Colours. Thus the power to transfer, which the Ministry obtained through these two schemes, was the key to the administration of the policy of dilution.

It must not be supposed that opposition to the Ministry's recommendations was universal on the part of employers, although such opposition bulked very largely in the eyes of the Department.¹ What was left undone naturally drew the attention of the Ministry rather than what was done. Perhaps without the pressure of the Department

¹ See *Memorandum on the Difficulties of Dilution*, 31 August, 1916. M.W. 58424/88.

not much would have been effected, certainly far less than was accomplished. But employers not infrequently took the initiative, and the work of the Ministry consisted in levelling up the organisation of the average firm towards the standard obtained by the more progressive rather than in imposing new methods of manufacture on British industry. Finally, it must not be forgotten that without the active intervention of the Ministry the skilled labour essential for the new factories and extensions would never have been secured.

VIII. The Attitude of the Supply Departments to Dilution.

Not the least of the difficulties of the Labour Department sprung from the fear of the various Supply Departments, both within and without the Ministry, lest dilution should retard the output for which they were severally responsible. Each department naturally tended to consider its own work of paramount importance ; and this tendency was exaggerated by two special circumstances. In 1916 deliveries were almost universally in arrear ; and the business men who controlled the new supply departments of the Ministry had not as a rule the civil servant's breadth of outlook and experience of departmental co-ordination. Consequently, if a firm was not ready to fall in with the Ministry's scheme of dilution, it not infrequently obtained the support of one or more of the supply departments by representing that the scheme would involve at any rate a temporary diminution of output. The large firms especially were able to exert influence in this way ; and for this reason some of the most efficient schemes of dilution were carried out in small establishments. Even where opposition of this kind was ultimately overcome, the delay often doubled the work of the dilution officers. For in the interval the firm might have obtained new orders, and so far altered the character of its work that a new inspection and a new scheme of dilution were necessary.

The most acute difficulties of this kind arose in connection with work for the Admiralty. At first the Ministry conceived the supply of labour, including the administration of dilution, as a common service for all the War Departments. This was not unnatural. Mr. Lloyd George had taken the initiative in negotiating with the trade unions for the relaxation of restrictive practices. The Munitions of War Act empowered the Minister to control the profits of establishments engaged on munitions work, to enforce in them the suspension of restrictions on production and employment, to regulate their labour, to secure the observance of the trade union conditions embodied in the Second Schedule, and to administer the War Munition Volunteer Scheme. Not only had the necessary legal powers been conferred on the Ministry, but it alone possessed the administrative machinery for regulating and supplying labour. Since the officers in control of the Labour Exchange organisation of the Board of Trade were also directing the Labour Department of the Ministry, these two bodies might almost be reckoned one in practice. Moreover, the Ministry was responsible for the release of soldiers from the Colours and the limitation of recruiting among munition workers. It was therefore natural that

the Ministry should claim to deal comprehensively with dilution, towards which every labour problem gravitated. It was important that dilution should be so far as possible administered uniformly, and particularly important in respect of similar products and similar classes of labour. Different action in respect of guns, ammunition or explosives according as they were manufactured for the use of the Navy or the Army seemed indefensible, and could only lead to trouble with the trade unions. Although the Ministry was not interested in shipyard labour, except in so far as it held a brief for the Board of Trade in connection with mercantile shipbuilding, it was vitally concerned in most classes of engineering labour. The uneconomical use of skilled fitters and turners anywhere restricted the supply available for the Ministry. Finally, many shops were engaged on work both for the Admiralty and for the Ministry; and it was largely a matter of accident which predominated at any particular time. Here it was obviously impossible to pursue different lines of action with respect to the labour employed.

The Ministry, therefore, urged the acceptance of the following principles.¹ Owing to the shortage of labour suitable for munitions work, labour must be allocated strictly in accordance with the relative urgency of requirements from a national point of view. On the analogy of rationing a population, no labour should be supplied to any firm in possession of hidden stores. To determine whether any firm had a hidden store, a uniform standard should be applied to employers in all districts irrespective of the particular Department with which their contracts were made. Different classes of work, no doubt, required different rules, but the same standard ought to be applied to similar classes of work. The only practicable method of arriving at a proper standard of economy was the method of experiment and comparison. The experience gained by the most enterprising employers in any district should be brought to bear upon all employers doing similar work in all districts. It followed that the machinery of dilution could not be purely local. However good the local representative of a Department might be for his ordinary work, his experience of the possibilities of dilution must be too narrow, since in this matter pre-war experience counted for very little. The knowledge of local conditions needed to be supplemented by a powerful organisation of competent mobile inspectors acquainted with the best results obtained in all the different districts. Nothing less than this would suffice to overcome local inertia and prejudice. Consequently, either centralisation in the hands of one Department or close co-operation was essential to ensure the application of a common standard and to expedite the process of dilution.

The Admiralty, on the other hand, maintained² that they could not allow any interference with the labour at their disposal. The

¹ Report of Conference between the Admiralty and the Ministry of Munitions, 1 June, 1916, attended by Rear-Admiral F. C. T. Tudor, Sir F. J. S. Hopwood, Sir W. Graham Greene, Sir H. Llewellyn Smith, Mr. C. F. Rey, Mr. Stephenson Kent, Mr. J. B. Adams, Vice-Admiral A. Y. Moggridge, Mr. M. F. Gauntlett. M.W. 105290/7.

² *Ibid.*

construction of new ships had been seriously delayed by the shortage of labour, which was due partly to men joining the Army, partly to men taking up work for the Ministry. There were no hidden stores of men in the shipyards. One battleship due for completion in the summer of 1915 was not ready a year later. Similar delays had occurred in the construction of cruisers. The Admiralty could not economise labour in the sense of aiming at the largest output in a given time ; they were bound to concentrate as much labour as possible on ships urgently required. There could be no question of relative urgency between the Army and the Navy. The whole of the British Army would be useless if the strength of the British Navy were not paramount. Nor could the Admiralty accept the standards of the Ministry. A defect in turbine blading might wreck the whole of the engines and render a battleship useless. If a shell burst in a large naval gun it would shatter the turret, and it might explode the magazine and destroy the ship. The Admiralty's inspection tests had been built up by the painful experience of many years, and could not be standardised according to experiences gained in the past few months by the officers of the Ministry on work of a different type. The Ministry desired that the experience of the most enterprising employers should be set up as a standard. The Admiralty could not accept that standard without the concurrence of their technical officers. They were willing to dilute where it was safe ; but they could not consent to any reduction of efficiency in the manner in which the work was done. They agreed that close co-operation was necessary, but they could not surrender their control. The Board could not continue their activities if any other authority were vested with power to determine whether men should be removed from Admiralty firms either for the Army or for work for the Ministry.

The Admiralty, therefore, informed¹ the Ministry on 17 June, 1916, that they desired to encourage dilution in their firms, provided always (1) that the changes would not cause the work to be done less efficiently, (2) that the rate of output would not be diminished, (3) that skilled labour made available by dilution would be utilised, if possible, to increase the output of the same firm. Otherwise it should be offered in the first place to other Admiralty firms. In view of the first two conditions, the Admiralty must be the authority to determine what measures of dilution should be introduced into establishments of which the whole or the larger proportion of the output was destined, directly or indirectly, for the Admiralty. Co-operation with the Ministry should be ensured by (1) consultation at headquarters to discuss the principles of dilution, and to obtain, if possible, a list of processes to which, in the opinion of both Departments, they could *prima facie* be applied and the measures of dilution practicable in each case, (2) joint negotiations at headquarters with the trade unions concerned, (3) joint inspection of Admiralty firms. The Admiralty did not object to the Ministry's officers inspecting Admiralty firms for dilution, provided that (1) sufficient notice was given to the Admiralty overseer to enable him to be present if he desired, (2) no man should be removed from a firm

¹ M.W. 105290/8. P. 2459/16/3136.

without the consent of the Admiralty, (3) the proposals should be put in the form of suggestions for the consideration of the Admiralty. The concurrence of the Admiralty might be assumed, unless a question of principle was involved, if the Admiralty overseer was present at the inspection and signed the report. But he might reserve any question for his superior officers, and then the formal consent of the Admiralty would be necessary.

These conditions, in effect, excluded the Admiralty firms from the administration of the Dilution Section of the Labour Department. After some further discussion it was finally agreed, at a conference on 18 October, 1916, at which Mr. Balfour and Mr. Montagu were present :—

(a) That both inspection and dilution in shipyards, and in the shops of firms engaged solely on marine engine work, should be conducted solely by Admiralty officials.

(b) That in "mixed firms," where the interests of the Admiralty and the Ministry each amounted to more than 25 per cent. of the output, the Ministry's officers (1) should have the right to inspect the Ministry's work and carry out such dilution thereon as the Ministry thought desirable, (2) should endeavour to arrange for a joint inspection of the Admiralty's work with their local representative, and to agree with him and carry through locally such dilution as might seem desirable. (3) Failing joint investigation, the Ministry's officers should be at liberty to make recommendations to the local Admiralty officer, and, if agreement could not be reached, to forward them to the Ministry for consultation with the Priority Section of the Admiralty.

(c) That where the interest of either Department in a firm did not amount to 25 per cent., such scheme of dilution as might be laid down by an officer inspecting might be proceeded with without consultation with the Department least concerned.

This demarcation of responsibility for dilution was completed by the establishment of the Shipyard Labour Department and by the delegation to the Admiralty of certain powers conferred on the Minister by the Munitions of War Acts, so far as shipyards and marine engineering establishments were concerned.¹

If the supply and regulation of Labour had been originally in the hands of a Department equally independent of the Ministry and the Admiralty, a successful resistance might perhaps have been made against the forces which tend to drive the department responsible for certain supplies to seek control of the labour required for their production, when labour has become the limiting factor on output. Much can be said in favour of a single Department of State charged with the responsibility of rationing and regulating labour in time of war. The rationing of labour would include the administration of exemptions from military service, the transfer of labour, and such reorganisation and reinforcement as are covered by the term "dilution";

¹ See Appendix XVI.

the regulation of labour would include the settlement of differences and the control of wages and conditions, such as hours, welfare and workshop discipline. It may be urged that a single authority should deal with all these problems, because Labour is essentially one, and interference with any group of workmen, whether the unit be an establishment, a trade or an industry, or with any function or condition, necessarily reacts throughout the whole body. To divide the responsibility for labour by reference to the responsibility for the supply of some specific product cannot but result in confusion. For the divisions between products are, so to speak, vertical, whereas the divisions in labour are horizontal.

On the other hand, full responsibility for supply involves the control of all the factors essential for its production. If this control is divided, the ultimate responsibility is thrown back on some superior authority. If the control is divided between the various supply and labour branches of one Department, the Minister in charge of it will secure the necessary co-ordination. But if the control is divided between different Departments of State, the responsibility for co-ordination must fall upon the Cabinet. This would not, perhaps, matter if the points at issue could be restricted to a few questions of principle. But labour administration, and in particular dilution, the transfer of skilled men, and exemption from military service, were essentially problems of detail, involving questions concerning the relative urgency of various supplies, the efficiency of particular factories, the ability and experience of individual men. In principle every one recognised that dilution and the transfer of labour were necessary. But no headway could be made without a most elaborate system of inspection and the preparation of schemes exactly adjusted to the special circumstances of the moment; and every detail involved the possibility of collision with the interest of a supply department, since the contractor was always ready to report that interference with his labour would retard his deliveries or diminish his output. Moreover, in administration speed and finality were most important. But inter-departmental negotiations are almost always slow; and there is no reason to think that an independent Labour Ministry, balancing the claims of the various Supply Departments on the one hand and on the other considering the possible reactions of its decisions on other parts of the world of Labour, would have proved any exception to the general experience. It seems unlikely, therefore, that the divorce of the responsibility for labour from that for supply would have effected as much as their union in the hands of the Ministry and the Admiralty.¹

¹ Since dilution meant a reorganisation which affected all classes of labour, it is not possible to give statistics which measure its extent accurately. Its main objects were to meet the demand for skilled men and to increase the output of munitions by introducing as much unskilled labour as possible. Evidence of success may therefore be found in the fact, that the outstanding demand for skilled engineers was reduced from 19,361 to 10,939 in the first six months of 1916, while out of 2,104,000 employees, male and female, in the principal munitions industries in July, 1916, at least 520,000 (of whom 233,000 were women) had been brought in since July, 1915, and of these it may be affirmed with confidence, only a small proportion can have had any skill or experience in the work which they undertook. See Chap. I., Sects. VI. and VII., Appendices I. and XV.

CHAPTER VI.

THE CLYDE DILUTION STRIKES.

I. The Attempt to Introduce Dilution at the Works of Messrs. J. Lang & Sons, August to December, 1915.

In the preceding chapter an account has been given of the nature of dilution and of the various difficulties which were encountered in the attempt to carry it out. Some of these difficulties may now be illustrated by a narrative of the manner in which effect was given to the policy of the Ministry on the Clyde.

In the midst of the troubles at Fairfield¹ over the leaving certificate, the Ministry was made aware that the introduction of female labour outside the limits of the Shells and Fuses Agreement would be obstinately contested in the West of Scotland.

In accordance with instructions² issued by the Machine Tool Committee on 7 August, 1915, Messrs. J. Lang & Sons, Johnstone, gave notice of their intention to bring women into their shops. But on 27 August the shop-stewards, with the district delegate of the Amalgamated Society of Engineers and a member of their Executive Council, informed the firm that the district committee had resolved that no woman should be put to work a lathe; if this was done the men would know how to protect their rights.³

The matter was discussed at a Conference between Mr. Lloyd George and the Council of the A.S.E. on 17 September. It then appeared that the opposition was due partly to the belief that the firm were not making full use of their skilled men, who were said to be working only 10 hours' overtime weekly, partly to the suspicion that they were trying to introduce cheap labour. Moreover, it was urged that before so great an innovation as the employment of women to make machine tools there should have been a consultation between the Ministry and the trade unions concerned. Mr. Lloyd George allowed that the original circular ought not to have been issued without his knowledge and discussion with the Labour Advisory Committee. But he insisted that women must be brought into the machine tool trade; there were not enough skilled men to make the machinery for turning out shells, and he strongly deprecated the suggestion that the men should work very long hours and every day of the week.

On 30 September the Ministry informed⁴ the Council of the A.S.E. that Messrs. Lang proposed to make a start with 12 women on gear-

¹ See Vol. IV., Part II., Chap. II.

² Circular 40, M.W. 58424/29. See Vol. IV., Part I., Chap. III., Sect. II.

³ M.W. 52265. *A.S.E. Journal*, October, 1915, p. 13.

⁴ M.W. 52265.

cutting, light drilling and milling machines, and to pay them 15s. a week, to be increased as soon as they showed themselves proficient. If the experiment was successful more women would be employed and the range of machines extended. The Minister intended to instruct the firm to proceed without delay.

The Council of the A.S.E. replied on 13 October, asking for a conference with the Ministry, stipulating that no arrangement for dilution should be enforced until the co-operation of their local officials had been secured, and limiting the employment of women to automatic gear-cutting machines and jig work on drilling, milling and grinding machines already set up. They also requested representation on Boards of Management.

The conference took place the following day. The representatives of the A.S.E. agreed that their local officials should not have the power of stopping the introduction of any change, but urged that employers should inform their officials before posting the notice of a change in their works. They also explained that the list of operations specified in their letter was not intended to be final and exhaustive, but only a first instalment. The Ministry pointed out that the request for representation on Boards of Management was a new condition outside the Treasury Agreement and the Munitions Act. It could not, therefore, be regarded as an essential preliminary to the relaxation of restrictions, but must be considered on its own merits. They undertook to convey the wishes of the Executive to the Minister; but explained the functions of the Boards and the difficulty of according representation on them to a single trade union. They intimated that after this conference the Ministry would feel itself free to proceed at once with dilution at Messrs. Lang's works, and wherever similar conditions existed. The Council accepted this position, but in view of the unrest in Scotland it was agreed that the Society should send a delegate to Johnstone along with a representative of the Ministry to assist in removing local difficulties.

This decision was not acted on immediately owing to the negotiations then proceeding concerning the recommendations of the Central Munitions Labour Supply Committee (subsequently known as Circulars L.2 and L.3) on the wages of women and men brought in by dilution to munitions work.¹ But on 18 October the Minister agreed to adopt these proposals in factories for which he was responsible, and to commend them for favourable consideration to other employers; and on 27 October the Council of the A.S.E. undertook to co-operate with the Ministry in introducing the scheme for dilution into establishments where the rates and conditions of labour laid down by the Committee were observed.²

Two days later Mr. Brownlie, Chairman of the A.S.E., and Mr. Gorman, a member of the Council, went down to Scotland and laid the scheme of dilution and the undertaking of the Council before the

¹ See Vol. IV., Part I., Chap. IV., Sect. IV.

² *Ibid.*, Sect. VI.

Paisley District Committee.¹ After a spirited discussion the meeting was adjourned without reaching a decision; but the next morning the Committee resolved to support their Council. Later in the day a mass meeting was held at Johnstone. Mr. Brownlie explained the Munitions Act and the urgent reasons for suspending trade customs and restrictions. Mr. Brodie, the district delegate, also made a strong appeal to the men to assist in giving effect to the policy of dilution. No resolution was submitted to the meeting, but its temper was thought to be not unfriendly to the recommendations of the Council. Accordingly, on 1 November Mr. Brownlie and Mr. Gorman, with Mr. Matson representing the Ministry, met the partners of Messrs. Lang & Sons, and stated that the firm could now proceed to introduce into their works female labour without fear of any trouble arising, provided that the conditions laid down in Circular L.2 were observed.² In answer to a question, Mr. Brownlie said that the number of women would not be restricted. If the firm desired to extend the range of machines full notice and opportunity for consultation must be given, in accordance with the Act.³

"My personal impression," Mr. Brownlie wrote, "of the proceedings with the local district committee and the workmen concerned is that no further difficulties will be experienced in that district in regard to the dilution scheme, and I am confident that the general body of the workmen will render all possible assistance to the Ministry of Munitions in giving effect to the dilution of skilled labour, as agreed to by the Executive Council of the A.S.E."

In the course of the next six weeks Messrs. Lang put 19 girls on milling, drilling and gear-cutting machines, and found the results satisfactory. But opposition was not long in reviving, and on 15 December the shop stewards informed the firm that the members of the A.S.E. had held a meeting and resolved that if another female were employed they would go on strike.⁴

The delay of the Ministry in pressing forward dilution in Messrs. Lang's works affected the whole of the Clyde area. It was regarded as a test case by the employers, and the course of events was reported from time to time to their Association. Their attitude is made clear by the following letter from their President, Mr. Rowan Thomson, in answer to the Minister's letter of 4 October setting out and enjoining the policy of dilution.⁵

"We sympathise," he wrote⁶ on 12 October, "and approve most heartily of the terms of the instructions, which we shall do our utmost to carry out wherever possible. But it is impossible to expect us or any other firm to give effect to such instructions in the face of the

¹ C.M.L.S.C. papers. Letter from Mr. Brownlie to Chairman, 3 November, 1915.

² M.W. 52265.

³ Schedule II., Sect. 7.

⁴ M.W. 61659.

⁵ Circular C.E. 1. See Vol. IV., Part I., Chap. IV., Sect. II.

⁶ M.W. 53193.

declared hostility of the trade unions to such action on the part of employers, and their defiance of their arrangements with the Government, notably in that notorious instance at the works of Messrs. Lang & Sons. . . . No employer is going to imperil the continuity of his work or run the risk of a stoppage by acting upon the terms of your circular, as long as the trade unions are permitted to flout the Government's instructions and treat their solemn engagements with the Government as so much waste paper."

"We can assure you in all seriousness that the fact of the trade unions being allowed to carry out their policy, and the delay on the part of the Government in bringing them to book for such action, are having a most serious effect upon the labour question in this district."

This criticism, however, not only ignores the fact that no action could be taken against the men at the outset, because Messrs. Lang had not posted rules under Section 4 (5) of the Act, making the restriction of employment a punishable offence, but it condemns as otiose the provisions of the Labour Supply Committee respecting the conditions under which dilution should be carried out and the wages of the persons introduced. It may be that a vigorous policy of coercion would have proved effective, but the trouble which had already been created by the leaving certificates gives little encouragement to this opinion. The policy of dilution could never succeed without the sympathy and co-operation of the skilled men. And to secure these it was not sufficient to obtain the assent of the executive councils in London. They were not plenipotentiaries, but bodies with powers jealously limited. To treat them as having the authority to bind the rank and file in matters outside their constitutional prerogatives was to put them in a false position and to court failure if not something worse. The Government had not always been alive to this danger; and there were persons in the Ministry of Munitions who were blind to it. But in exhausting every method of conciliation to obtain the men's consent to dilution before resorting to compulsion, it can hardly be doubted that the Ministry were pursuing the course most likely to bear fruit in the end.

II. Mr. Lloyd George's Visit to Glasgow, Christmas, 1915.

The trade union leaders had long urged Mr. Lloyd George to visit the great industrial centres in the North, in order to learn at first hand the temper of the men and to explain to them the necessity of the more unpopular parts of his policy. At last, on 23 December, he went to Glasgow, accompanied by Mr. Henderson and Lord Murray of Elibank. A meeting had been arranged for that night by a committee of local trade union officials, but shortly beforehand by the Minister's request it was postponed to Christmas morning. This change of plan annoyed the committee, who refused by 29 votes to 7 to have anything to do with the meeting on Christmas day, since they could not secure a representative gathering in so short a time.

(a) THE MEETING AT PARKHEAD FORGE.

Mr. Lloyd George first visited Parkhead Forge, where he met the shop-stewards.¹ Mr. Kirkwood was asked to act as Chairman, and consented on condition that he should remain free to put questions or discuss what was said. He then opened the meeting by saying: "This is Mr. Lloyd George. He has come specially to speak to you, and no doubt you will give him a patient hearing. I can assure him that every word he says will be carefully weighed. We regard him with suspicion because every act with which his name is associated has the taint of slavery about it." He would find that they as Scotsmen resented this, and if he desired to get the best out of them he must treat them with justice and respect. Mr. Lloyd George then addressed the men, urging the need of guns and shells, and the necessity of using unskilled labour for work on which skilled men were then employed. When he had finished Mr. Kirkwood asked if he was prepared to give the workers a share in the management of the works. As Socialists, they welcomed dilution of labour, which they regarded as the natural development in industrial conditions. They were not like the Luddites of another generation, who smashed the new machinery. But this scheme of dilution must be carried out under the control of the workers. Otherwise cheap labour would be introduced. Unless their demand was granted, they would fight the scheme to the death. Mr. Lloyd George was understood to say that the workers were not capable of managing the workshops, to which Mr. Kirkwood hotly retorted: "These men, for whom I ask a say in the management, carry the confidence of the workers and have confidence in themselves. They brought out the men of the Clyde in February in defiance of you, in defiance of the Government, in defiance of the Army and in defiance of the trade union leaders.² They not only led them out, but they led them back victorious. They let it be known that if their demands were not granted, masters might force them to the workshops, but could not make them work." Who ran the workshops now? Men drawn from the ranks of the working class. The only change would be responsibility to the workers instead of the present employers. If production was to be improved, the benefit must go to the workers. Mr. Lloyd George replied that this was a revolutionary proposal, and the present was not a time for revolutions, when the country was engaged in a life and death struggle with a foreign foe. Several questions were then put on the Munitions of War Act, in the course of which Mr. Kirkwood remarked that it bound the workers to Beardmore's as effectively as if they had branded a capital B on their brows. Mr. Lloyd George said that he was not responsible for the Munitions Act. It emanated from their leaders, men like Mr. Brownlie and Mr. Henderson, who was present. Mr. Kirkwood then turned towards Mr. Henderson and said: "We repudiate this man. He is no leader of ours. Brownlie had been told the same to his face. And if you, Mr. Lloyd George, want to know the mind of the workers, don't go to these men. If you wish to do away with the discontent in the workshops, do away with the cause."

¹ *Forward*, 1 January, 1916. *Worker*, 8 January. M.W. 74773.

² See Vol. IV., Part II., Chap. II., Sect. I.

(b) THE VIEWS OF THE CLYDE WORKERS' COMMITTEE.

The next day, 24 December, Mr. Lloyd George received a deputation of the Clyde Workers' Committee, whose views were stated by Mr. J. W. Muir.¹ They did not need (he said) any lecturing on the urgency of supplies, or explanation of the principle of dilution, with which they were thoroughly conversant. Dilution was not original at that time, but had been going on practically since the Industrial Revolution. Every new subdivision of labour and every new adoption of standard parts had made for its extension. The present demand for the widespread employment of unskilled men and women was therefore merely an effort to accelerate a movement already begun. "We have no objection to that, provided its application conforms to certain clearly defined conditions which I shall specify later. We regard it as progressive from the point of view that it simplifies the labour process, makes labour more mobile, and tends to increase output. In short, it is a step in the direct line of *industrial* evolution. But—and this is where the present difficulties arise—its progressive character is lost to the community unless it is accompanied by a corresponding step in *social* evolution."

Dilution had been going on tardily for some months, not with the goodwill and co-operation of the skilled men, but against their sullen and barely concealed opposition. Instinctively the mass of the workers felt that their future was menaced. The War had given the employers the opportunity of trying an experiment they had long desired, free of risk and on a scale far beyond their dreams. It was proposed to displace a skilled man by a woman earning £1 a week. That might mean an advance of 9s. or 12s. a week for the woman; but it was 18s. or 20s. less than the wage of the skilled man. The employers would gain; but the standard of the whole working class would be lowered.

"Of course we know of the scheme for taxing surplus profits, but we feel certain that the taxes will not materialise as expected. (Mr. Lloyd George: "Oh, yes they will. I have the figures here.") Any figures you can produce now will not prove much I am afraid. The employers are allowed to make their average profits of two years prior to the outbreak of war, plus 20 per cent. plus certain allowances, which can be expanded in such a way as to make their surplus almost a negligible quantity. . . .

"We know also that the Munitions Act contains a guarantee of a return to pre-war conditions, but we have no faith in it . . . without questioning the intentions of the Government we say that the guarantee cannot be fulfilled." Even if an Act were passed to compel the employers to revert to pre-war conditions, its operation must be limited to one or two years. "By that Act you would set back the hands of industrial progress, and would continue to hold them back during the period fixed, and that at a time, too, when we are told we may be engaged in a commercial war. But even at the expiry of the

¹ *Worker*, 15 January, 1916. M.W. 74773/2.

time limit, the employers would be free to take advantage of the experience gained during the War, while we would not be so free to resist as before the War."

So long as real safeguards were absent, there would be no hearty co-operation between the skilled men and the new-comers. Trouble could be averted only by making the scheme for dilution conform to three conditions. Its benefits should not accrue to one class in the community; it should not react detrimentally on any grade of labour; organised labour must have a share in controlling it.

"These conditions can only be fulfilled by the Government's compliance with the demand of the Clyde Workers' Committee that all industries and national resources must be taken over by the Government—not merely 'controlled' but taken over completely—and that organised labour should be vested with the right to take part directly and equally with the present managers in the management and administration in every department of industry. I have used the word 'demand' advisedly, as this is no propagandist statement. It is our fixed determination to force the matter to an issue."

The Clyde Workers' Committee was set up to organise the strike in February, 1915. The bulk of its members were shop-stewards or delegates from the shipbuilding and engineering trades, but representatives of other trades were not excluded. It was then known as the Labour-withholding Committee. After the strike its members resolved to keep it in being, in order to maintain closer co-operation among the rank and file of the different trades and to bring pressure to bear on the trade union officials, who, in their opinion, had failed to grasp the significance of the changes wrought by the War and to formulate a policy adequate to protect the interests of the workers. When the Fairfield shipwrights were imprisoned, the Committee again became active, and weekly meetings were held on Saturday afternoons at which the progressives of all trades were invited to attend.

The relation of this Committee to the trade union officials was clearly defined by Mr. J. W. Muir in the first number of the *Worker*.¹ He denied Mr. Lloyd George's statement that the mutiny was not against the Government, but against the whole organisation of trade unionism.²

"Our position has been perfectly clear all along. We hold the view that the trade union officials are the servants and not the masters of the rank and file, and that they require some pressure at times to move them on the path the rank and file desire them to tread. The Clyde Workers' Committee exists for the purpose of preventing the rank and file efforts being dissipated through lack of organisation.

"Furthermore, the fact that each official represents one trade, and is concerned with the interests of that one trade

¹ *Worker*, 8 January, 1916. M.W. 74773.

² *Parliamentary Debates* (1916), H. of C., LXXVII. 927.

union only, narrows his view so much that official action is at times positively detrimental to the members of his own society. Knowing that unity of action between all the workers of a given industry is more effective than sectional action, and knowing that such unity can be real and lasting only if it comes first through the fraternising of the rank and file of the various trades, the Clyde Workers' Committee have set themselves the task of co-ordinating the forces of Labour. Mr. Lloyd George may think that he will 'divide and conquer' if he can get us to direct our attack against the trade union officials and can get them to retaliate. But he is not going to succeed. . . . Our policy is not to fight the officials from any motives of jealousy, but to back them with all the power and influence at our disposal when they act rightly, and when they fail to act in the right way to make the pace ourselves. It is 'up to' the officials to set the pace, knowing as they do the present temper of the workers.

"On the broader issue of the Munitions Act, dilution of Labour, high food prices, conscription, and the endless demand for sacrifices on the part of the workers our position is equally clear. We are up against the Government on these matters."

(c) THE MEETING AT ST. ANDREW'S HALL.

On Christmas morning Mr. Lloyd George addressed 3 000 shop-stewards and trade union delegates in St. Andrew's Hall. Many of the men were in a bad humour and the speeches were incessantly interrupted.¹

Mr. Henderson, who took the chair, explained the object of the meeting. Seventeen months of war on a scale without precedent in the history of the world had demonstrated the magnitude of the task laid upon Britain and her Allies. Mr. Lloyd George and he had come to speak to them in the name of the Government in order to convince them how important a part the munition workers must take in the settlement of the issues involved in this great world-conflict. Britain had found it necessary to organise her largest army, and in his opinion every man that could possibly be spared would be required if the final result was to be such as would make permanently secure the interests and ideals of democracy.

He desired to remove a most erroneous impression prevailing in the minds of some of the workers concerning the scheme of Labour Dilution, on the imperative need of which the Minister of Munitions was about to address them. It had been stated that the plan of dilution had emanated from some of the employers. He must emphatically contest this idea. It was recommended to the Munitions

¹ Since the interruptions afford an instructive commentary on the attitude of a considerable minority, the *Forward's* report of the meeting, which alone preserves them, is reproduced in Appendix XIX. The following account follows the authorised report. See *Times*, 27 December, 1915.

Department by a committee upon which there were six other trade unionists beside himself. Many skilled workmen were apprehensive as to the permanent effect upon their position of introducing unskilled and female labour. The leaders of the trade union movement had not been unmindful of this, and it was necessary to point out that the position of the skilled workmen had been safeguarded in certain very definite provisions contained in the Munitions Act. Moreover, it was important that they should refrain from associating the question of dilution with any particular works; it was a question of national importance; dilution was necessary to supply the great national needs and was due solely to the circumstances and requirements of the country.

During such a crisis it was of the highest importance that the experience and capacity of the skilled workers should be utilised in order that they might render to the State the most effective services. Only in this way could the output of munitions be accelerated and increased to an extent that would not only equip our own Army, but enable us to render valuable assistance to our Allies, and enable us jointly to carry the war to a successful conclusion.

Mr. Lloyd George said :—

“ Mr. Henderson and I have come here on behalf of the Government, at the request of the British Army, to make arrangements for manufacturing big guns and projectiles to support our gallant fellows at the front, and we need your help to accomplish our task. It is a weird business for a Christmas morning, but I want you to remember that, while we are comfortable at home, looking forward to a pleasant evening, there are hundreds and thousands of our kith and kin in damp dreary trenches, with the whistle of death hurtling around them, and their comrades falling, and I have come to place before you proposals upon the acceptance of which depends not merely victory, but the saving of numberless lives among these brave men. I feel certain you will give us a fair hearing and favourable consideration. . . .

“ It is essential that we should equip our Army with a large number of these heavy guns and projectiles. And in order to do this we are setting up great national factories all over the kingdom—State-owned, State-erected, State-controlled, State-equipped, with no profit for any capitalists. To man these factories we need 80,000 skilled men. There is only one way to get them, and that is by taking, for the period of the War, skilled men from work which unskilled males or females can do after a week or fortnight's training, and transferring the men thus released to those factories to perform highly-skilled work. If we fail, at the best you prolong the War with its untold tale of misery and loss; at the worst we lose the War, with all that defeat portends for the future of democracy in this and in every other European country.

"It is therefore vital that we should get these skilled men to help us. (A voice, "You won't get them.") I have come here to face 3,000 Glasgow trade unionists with my statement of the case. Will that gentleman venture to go to Flanders to face 3,000 British soldiers in the trenches with his statement?" (Prolonged cheering from the majority of the audience.)

Mr. Lloyd George then explained that the big guns were required to destroy the deep German trenches and the deadly machine guns they concealed. He proceeded to show how the German workmen had driven back the Russian Armies by making huge guns and an endless supply of great shells. How was France able to face this terrible machine? The French Army was also short of munitions, but the French workmen came to the rescue.

"The French engineer realised that by virtue of his craft he was kept safe at home while his comrades were facing death. He was enjoying high wages—though not as high as ours—and he thought the least he could do was to work his hardest and to give of his very best to help the men who were facing peril on his behalf and on behalf of the country he loved; so at the bidding of a Socialist Minister of Munitions he cast aside regulations, customs, practices, and called to his aid every man and every woman who could assist, piled up guns, shells, munitions and equipment of all kinds, and by his patriotic devotion saved the country, and his country will never forget it.

"That is what the French workmen did for their country. That is what even the German workmen did for their Fatherland. Victory is not possible unless the British workman follows frankly the example of his French comrades and sets aside every rule and regulation that tangles the footsteps of victory—unless he does it without cavil and, above all, without delay.

"I cannot go back to Parliament and report to the House of Commons, and through the House of Commons to the British Army, that the skilled workmen will not release nor suspend their rules to save their fellow-workmen's lives on the battlefield. We want to put skilled men on skilled work, filling the vacancies by means of the employment of women, who are able in a short time to acquire the necessary experience to do that class of work. I have been through several workshops during the last few days. I have seen women performing tasks hitherto allotted to skilled engineers—performing them successfully, swiftly—and yet it had only taken them, some two days, some a week, and some a fortnight, to learn how to do that work. I have seen men engaged on very heavy work which requires strength and deftness—I have seen them perform highly-skilled operations which require years of training. Our proposal is that the light work which requires neither strength nor skill that cannot be acquired by short training should be performed by women, so that the skilled men should be taken away to man the national gun and projectile factories

“ If we fail to obtain your adhesion to this programme we are faced with one of two alternatives. We can go to the trenches and say to the British soldiers :—

‘ We are sorry that we cannot get the necessary guns to enable you to win through in 1916—trade union regulations stand in the way. If you can go on for another year perhaps the American workmen will help us to get you a sufficient supply for 1917. It is true that meanwhile you will have to face attacks from great guns and howitzers and mortars constructed by German workmen for their mates. Still, somehow we will get through, but we are bound to tell you what the position is.’

“ The other alternative is that we should send to the Kaiser telling him frankly that we cannot go on. He might let us off with the annexation of Belgium—with the payment of an indemnity—with a British Colony or two—but one thing he will certainly demand, and that is that Great Britain shall surrender her command of the sea. That every German publicist has demanded. If he were victorious he would take nothing less, for that is the great menace to Prussian supremacy, and Great Britain would then be as completely at the mercy of Prussian despotism as Belgium is to-day. I cannot believe that the highly-skilled workmen of this country, whose patriotism has been manifested by the readiness with which they have given their sons to fight the country’s battles—I do not believe that they will give us this answer. There are no better craftsmen in the world—we know that from the class of work they are turning out for us. We know that the vast majority of them are prepared to make any sacrifice. We are asking them to make this sacrifice which has already been made by the French workmen for his country.

“ Time is vital ; time is victory ; time is life. There have been already over 530,000 casualties—300,000 since the agreement was entered into between the trade unions and the Government in March. Further delay means further losses, and I appeal to the workmen to help us ; help us quickly ; help us thoroughly. They may depend upon it that it will strengthen their claim at the end of the War upon the people of this country for a redress of any grievances they may suffer to-day. The patriotism of the French workmen has given him a deep and abiding claim on the consideration and gratitude of his fellow-countrymen, and his demands when put forward in the future will be heard with the respectful attention which is the reward of their sacrifices during the war.

“ In spite of the protests of a minority at this meeting, I feel that I can thank the vast majority for the appreciative hearing they have given to my right hon. friend and myself. The position of a Minister of the Crown in a great War is not an enviable one. A doctor who is called in to advise in a serious

case has an anxious decision to take. If he gives this advice it might save life ; if he takes the other course, it might end in death. That is a matter of a single life, but here upon the decisions of Ministers may depend scores of thousands of gallant lives. The position is an anxious one, which no man would seek of his own free will. In what I have counselled to-day I have given the prescription—it is for you to dispense. If you tell me that you mean to reject what the Government prescribes because the ingredients are not in your pharmacopœia, the responsibility must rest on you.

“ I wonder how many people realise the magnitude of the War and the tremendous issues that depend upon it. Sometimes I fear that they treat it as a passing shower—heavy, drenching perhaps, but transient. Soon the sun will shine again and quickly dry up the puddles, and we can once more walk along the same old roads in the same old shambling way. But this is not a passing shower—it is not a spell of bad weather—it is the deluge, it is a convulsion of Nature. If you will carefully watch what is going on in the belligerent lands, you will find that this war is bringing unheard-of changes in the social and industrial fabric. It is a cyclone which is tearing up by the roots the ornamental plants of modern society and wrecking some of the flimsy trestle bridges of modern civilisation. It is an earthquake which is upheaving the very rocks of European life. It is one of those seismic disturbances in which nations leap forward or fall backward generations in a single bound.

“ All this chaffering about relaxing a rule here and suspending a custom there is out of place. You cannot haggle with an earthquake, and I beg the skilled workmen of this country, in whose keeping are the destinies of labour, to lift up their eyes above the mists of distrust and suspicion, and ascend to the height of the greatest opportunity that ever opened before their class, and by so doing there will emerge after the War that future of hope which the great leaders of democracy in all ages have pictured in their dreams.”

At the close of his address, Mr. Lloyd George proceeded to answer the written questions which had been handed up from the body of the hall. He promised to reply to them all if he could, but he had an engagement at noon, and if he failed to get through them the remaining answers would be published. At 11.45 a.m., however, Mr. John Muir, of the Clyde Workers' Committee, got up on a chair and demanded an opportunity of stating the case for the workers. This, he said, had been promised, and he was not going to wait any longer. Both Mr. Lloyd George and Mr. Henderson appealed to him to resume his seat, but he was determined not to be put off till Mr. Lloyd George had to leave. As it was impossible to hear either the Minister or Mr. Muir, the Chairman closed the proceedings, and the meeting broke up in disorder.

III. The Stay-in Strike at Dalmuir, 29 December, 1915.

An indirect consequence of this meeting was a "stay-in" strike of 400 men in the gun mounting department of Messrs. Beardmore's works at Dalmuir during the last three days of 1915.¹ The convener of shop-stewards had been dismissed for making a false statement and using improper language to the managers in connection with a special arrangement for paying the shop-stewards on Friday instead of Saturday, to enable them to attend Mr. Lloyd George's meeting on Christmas morning. The men did not know the reason of the dismissal, but assuming that it was due to the shop-steward's activity as a trade unionist, they refused to do any work and demanded his reinstatement.

After the New Year holidays, on 5 January 28 of the strikers were brought before a Munitions Tribunal, Sheriff Fyfe presiding. The case, however, was adjourned until 8 January to allow for the preparation of the defence, on condition that the men undertook to return to work immediately. Then the Solicitor-General, who prosecuted on behalf of the Minister of Munitions, after reviewing the facts, said² that since some of the accused might not have known the provisions of the Munitions Act, and others must have been duped and deceived, he was prepared to open an avenue of escape for them. "If any of them now, at the eleventh hour, choose to come forward and say that they went on strike under misapprehension, that they regret their conduct, that they will undertake that they will in future observe the Act of Parliament and not go on strike, then I shall withdraw the prosecution against any of the men who take this course." Otherwise he must press for an exemplary penalty. This offer, made before conviction and sentence, was not accepted. The case therefore proceeded, the men were found guilty, and the Sheriff imposed a fine of £5 on each of them, leaving the Ministry of Munitions to take such further action as it might think fit.

Accordingly, it was proposed³ that the men should be asked to sign a statement that they were under a misapprehension as to the circumstances which brought about the strike, expressed their regret at having taken any part in it, and gave their undertaking that they would not for the duration of the war take part in any form of strike while engaged in any establishment in the United Kingdom. The District Committee of the A.S.E., to whom this proposal was submitted in the hope that they would urge the men to sign it, replied on 15 January that they considered the document most humiliating and obnoxious, and in consequence they could do no other than advise the men to have nothing to do with it. It was understood that the men at Dalmuir had agreed among themselves not to pay the fines, and if any attempt were made to recover the amount they would at once throw down their tools. The fines were never paid. The Ministry first postponed taking action in order to give a fair field to the Clyde Dilution Commission, and finally dropped the subject on 18 February.

¹ C.E. 185/5, Part IV.

² C.E. 185/5, Part V., p. 147.

³ C.E. 185/5, Part IV.

IV. The Suppression of the "Forward."

On 3 January, 1916, the *Forward* was suppressed by the military authorities,¹ acting under Regulation 51 of the Defence of the Realm Regulations, at the instance of the Ministry of Munitions, on the ground that an offence had been committed against Regulation 27, which prescribes that "no person shall . . . in any newspaper . . . spread false statements or reports, or statements likely to cause disaffection to His Majesty or to interfere with the success of His Majesty's Forces by land or sea."

The events leading up to this action were as follows.² On 31 December the Ministry received a message by telephone from their office in Glasgow that the *Forward*, published that afternoon, contained an article on, and an account of, the Minister's meeting on Christmas Day, quoting in full the interruptions and interjections, and that the publication of this article was likely to have an extremely unfortunate effect on the feeling of the men on the Clyde, to throw obstacles in the way of carrying out the dilution of labour, and to impede seriously the production of munitions. The Press Censor had particularly requested that no report other than the official version of the Minister's speech should be published. But this request had not been communicated to the editor of the *Forward*. At a meeting the same night, at which Mr. Lloyd George, Dr. Addison, Sir H. Llewellyn Smith, Mr. Beveridge, and Mr. Rey were present, it was decided provisionally that the *Forward* should be seized.

A copy of the newspaper arrived the following morning, and Mr. Rey, after showing it to Lord Murray, who agreed to the course proposed, proceeded to arrange for its seizure. He first went to the Scottish Office and saw the Legal Adviser to the Lord Advocate, who was then in Edinburgh. It was arranged that the Legal Adviser should communicate with the Lord Advocate, explaining the views of the Ministry, and that at the same time Mr. Rey should, through the War Office, ask the Commander-in-Chief in Scotland to put himself in communication with the Lord Advocate. Accordingly, on 2 January a consultation took place between General Sir Spencer Ewart, the Lord Advocate, and Mr. Paterson, the Labour Officer for Scotland. It was decided to proceed with the seizure, and instructions were issued to the police to seize all copies of the *Forward*, and also the machinery of the Civic Press, under Regulations 2, 18, 27 and 51 of the Defence of the Realm Regulations.

On 4 January questions were asked in the House of Commons. Mr. Tennant replied³ that action had been taken by the competent military authority under Regulation 51 at the instance of the Ministry of Munitions on the ground of an offence under Regulation 27. It did not necessarily follow that there would be any trial. In answer

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 801.

² *M.W.* 74077.

³ *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 801.

to a supplementary question, Mr. Lloyd George said¹ that if he had received notice he could have shown the House that the *Forward* had been deliberately inciting the workers not to carry out an Act of Parliament passed in order to promote the output of munitions. When the matter was debated² in the House on 10 January, Mr. Lloyd George, in vindicating the action of his department, found³ the chief offence of the *Forward* in the contravention of Regulation 42, which ran as follows: "If any person attempts to cause mutiny, sedition, or disaffection among any of His Majesty's Forces or among the civilian population, or to impede, delay, or restrict the production, repair or transport of war material, or any other work necessary for the successful prosecution of the War,⁴ he shall be guilty of an offence against these Regulations."

Whether the suppression of the *Forward* was justified depends on the answer to two questions: Was the account of Mr. Lloyd George's meetings false? Was the *Forward's* presentation and criticism of the policy of dilution an attempt to restrict the production of munitions?

In regard to the first question, it must be allowed that the temper of the writer was certainly not friendly; it may have been malicious; and probably the hostility of the audience was exaggerated. But there is no reason to deny the editor's claim⁵ that the reports were accurate.

"They were not so full as they might have been, for we sub-edited them with great care, and excised everything relative to naval and military affairs. We published, according to our invariable rule during the War, only such parts as had been of an economic or political value, but we added nothing, and we paraphrased nothing. The report was incomplete, but it was true."

That there was no solid case against the *Forward's* reports is confirmed by the fact that they were subsequently reprinted by several other papers, against which no action was taken.⁶

The attitude of the *Forward* towards dilution is quite clear from its article in the suppressed issue⁷:—

"Mr. Lloyd George," it says, "has asked the trade unions to agree to work beside 60,000 unskilled workers for the purpose of turning out munitions of war. This is what is called 'Dilution of Labour.' On principle—on Socialist principle—

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 803.

² *Ibid.*, 1394 ff.

³ *Ibid.*, 1420.

⁴ The words "or to impede . . . prosecution of the War" were added on 30 November, 1915, since the Clyde Strikes had proved in more ways than one the inadequacy of the Munitions of War Act. See Vol. IV., Part II., Chap. III., Sect. V.

⁵ *Forward*, 5 February, 1916. M.W. 74077/9. See Appendix XIX.

⁶ *Worker*, 8 January, 1916. *Socialist*, February, 1916. *New Witness*. See Mr. Hogge's question, *Parliamentary Debates* (1916), *H. of C.*, LXXVII. 804.

⁷ HIST. REC./R/324/18.

there is no objection to this proposal, provided that effective steps are taken to prevent it being used by the employers to break wages by having a big surplusage of labour after (or during) the War. The men at Parkhead told Mr. Lloyd George that they would agree *instantly* if they would get control of labour in the workshop. Mr. Lloyd George said this would be a revolution, and he did not seem disposed to favour it. But if it is in the direct line of evolution in industry, that the old craft barriers—many of them intensely silly—should disappear, it is also in the direct line of evolution in industry that the workshop, through a committee, should control, and bargain with, its labour power. Joint management is what is wanted—the State, the Employer or Organiser, and the Workers' Committee. And why not? Why not in the National Factories at once?"

The article then quoted a passage¹ from the *Scottish Law Courts Record* to show that the fear of cheap labour, low wages, and long hours in consequence of dilution was no mere invention of the workmen's imagination. It concluded:—

"Dilution of labour without workers' control in the workshops will speedily mean a permanent deterioration in working class standards of life. Neither Mr. Lloyd George nor any other sane man wants that. And as shells in abundance are a State necessity, why cannot Mr. Lloyd George demand that dilution of labour be accompanied by such altered conditions in the control of the workshop as will safeguard the workers and their children in the future?"

This article is not intemperate in its language, and it certainly contains a fruitful idea, which has been grafted into more than one scheme of dilution. Some of the most successful dilution has been carried out, notably at Elswick, under the control of a joint committee representing the management and the workmen. Perhaps the men at Parkhead and the writer in the *Forward* would not have been satisfied with a joint committee; but to ask for more was not a contravention of Regulation 42.

No doubt exception could be taken to the manner in which the political and economic doctrines, characteristic of Socialism, were expressed in the *Forward*. Its language was not restrained; nor was it too scrupulous in the use of rhetorical devices to drive home its accusations against shipowners, armament firms, corn merchants, coal-owners and landlords for making profits out of the War. But that its charges were not baseless is proved by the action which the Government was compelled to take in limiting profits and in fixing rents and prices. It retorted against those who were conducting propaganda in favour of conscription arguments and epithets quite as unfair and as violent as those which were used by its opponents. It made no allowances for the difficult position in which the trade union leaders found themselves between the Government and the

¹ See Vol. IV., Part II., Chap. II., Sect. V.

rank and file, between the claims of patriotism and of trade unionism, between the duty of prosecuting the War with the whole strength of the nation and the demand for the preservation of sectional interests if not class privileges. It was one-sided, and it certainly afforded material on which feelings of aggravation and unrest could feed. But it not only did not foment strikes, it studiously avoided all reference to them, and was keenly criticised by some of its friends for so doing. Although it regarded all wars as the fruit of capitalism, it regularly admitted the articles of a contributor who put the British case for the War strongly and well. But, whatever one might think about its doctrines or its tone, no clear case of contravening the Defence of the Realm Regulations was made out against it.¹ And an impartial critic, reviewing the quarrel after the hand of time has brought the conflicting elements into their true perspective, will probably conclude that a more generous confidence in the good sense of the British public would have been a wiser policy and more consonant with the traditions of the British Government.

On 8 January the Civic Press was permitted to resume work on promising not to print anything which could be held to interfere with the production of munitions or to be contrary to the Defence of the Realm Regulations.² And on 26 January the editor of the *Forward* signed³ an undertaking "not to issue or publish any matter calculated to prejudice the military interests or safety of the country in the present crisis, or to impede or to interfere with the production or supply of munitions of war, or cause disaffection with the Munitions of War Acts, or with the policy of dilution of labour, and to stipulate with any company by which the matter is printed that in case of doubt such matter shall be submitted for approval to the Press Bureau."

V. Effort of A.S.E. to reach Agreement with Employers on Dilution.

After his meeting in St. Andrew's Hall on Christmas Day, Mr. Lloyd George received a deputation of the A.S.E., who promised that they would try to reach at once an understanding with the employers on Dilution. Accordingly, the District Committees of the North-Western Area met and agreed⁴ to co-operate heartily with the officers of the Ministry and the employers in staffing the National and other munitions factories by means of dilution on the following conditions: (1) that preference should be given to skilled labour adversely affected by the War, though not connected with the engineering trade; (2) that skilled engineers transferred to higher work

¹ The *Forward's* defence of itself against Mr. Lloyd George's attack on 10 January is contained in *Forward*, 5 February, 1916.

² M.W. 74077.

³ M.W. 74077/6.

⁴ M.W. 79449.

should not suffer pecuniary loss ; (3) that every skilled man on an unskilled machine must be put on higher work ; (4) that the Board of Trade should issue a certificate of registration to every man employed as an engineer before the War ; (5) that a Joint-Committee of employers and engineers should be appointed for the period of the War to deal with all grievances arising out of Dilution and to control as far as possible the transference of men.

On 21 January representatives of the A.S.E. met the employers, Mr. C. F. Rey presiding, in order to arrive if possible at an agreement.¹ But the next day Mr. Bunton wrote to Mr. Lloyd George that the conference had been a complete failure. Mr. Brodie, organising delegate of the A.S.E., asked for guidance from the Government and a statement of the employers' position. But the chairman's reply was in effect "Conform to the Act." And this was endorsed by the employers, who said that Dilution was already in operation, and they were prepared to respect the Government's requirements.

After the meeting Mr. Bunton was instructed to express to Mr. Lloyd George the keen regret of the A.S.E. that their efforts had not met with a more hearty response. They also desired to point out that many firms had introduced dilution without the sanction of the men or their officials ; they received insistent complaints that some employers were retaining skilled men who ought to be transferred ; other firms, taking advantage of the Treasury and the Shells and Fuses Agreements, were dismissing their skilled mechanics ; the existing machinery of local and central conferences between employers and men was ponderous, slow, and, like the mills of God, grinding exceeding small.

"We put the foregoing before you," Mr. Bunton concluded, "not as a condition to our acceptance of the scheme. We refuse to grant first place to the employers in our desire to assist, in every way possible, the speedy and complete overthrow of our present common enemy, but we claim this can only be accomplished by that united co-operation which to-day has been denied us. We are animated first and last by the thorough conviction that the only means to inspire confidence in our members is to give them proof that their interests are being safeguarded along democratic lines. So long as employers and Government officials are permitted to arrange Dilution between them, so long will dissension exist. Our suggestion to remedy this is Local Sub-Committees, equally representative of the Government, the employers and the Society. Should your views not coincide with those contained herein, you can rest assured we will do what is humanly possible to carry out what we regard as our obligation, and what is unmistakably our pledge, but we are not at all hopeful of the result."

¹ M.W. 58424/17.

VI. The Appointment and Procedure of the Clyde Dilution Commission.

On the same day, 21 January, 1916, Mr. Needham asked the Prime Minister in the House of Commons whether the Government were experiencing any difficulty in obtaining the necessary supply of skilled labour—especially in the new National Workshops—and, if so, what steps the Government proposed to take in order to accelerate the supply of munitions. Mr. Asquith replied¹ :—

“ The Government have given this matter the most careful and anxious consideration. They are convinced, after taking into account all other methods of increasing the available supply of labour for munition work, that the adoption of dilution, that is to say the employment during the war period of semi-skilled and unskilled and female labour on any class of work upon which it can be usefully employed so as to set free skilled workmen for the work which they alone can perform, offers the only prospect of securing a sufficient supply of munitions to enable the War to be brought to a speedy and successful conclusion.

“ Any lack of munitions will lengthen the duration of the War and will exact a heavy toll on the lives of our soldiers. It is quite impossible for foreign supplies to take the place of home production of munitions, since even if these sources of supply could be indefinitely expanded the immense demands thereby entailed both on our financial resources and on our shipping would present insuperable difficulties.

“ The necessities of the War have been pointed out both to the owners of controlled establishments and to the representatives of the great trade unions, and they have loyally pledged themselves to support the Government in the scheme of labour dilution, the necessity for which has arisen from the national requirements and not from any demand by employers. Guarantees as to the nature and temporary character of the changes have already been given, and considerable progress has already been made in certain districts to give effect to the policy indicated above, but I regret to say that what has hitherto been accomplished falls lamentably short of the national requirements in the present emergency.

“ The Government accordingly propose to take steps to bring about this dilution of labour wherever needed, in accordance with the necessities of the situation and on the conditions laid down after agreement with the representatives of the workmen in the Munitions of War Act as amended, without further delay. They are issuing instructions to controlled establishments to secure this where this has not been done,

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXVIII. 765. See also Appendix XVII.

and they are sending special representatives to the most important districts to assist in giving effect to their policy.

"I rely confidently on the support both of employers and of workmen in a matter which is vital to the successful prosecution of the War."

On the following day Mr. Lynden Macassey, Sir Thomas Munro and Mr. I. H. Mitchell were appointed by the Government as a Commission for the purpose of effecting dilution of labour in the Clyde district. They grasped the nettle at once by dealing with the works of Messrs. John Lang & Sons, Messrs. W. Beardmore & Co., and Messrs. G. & J. Weir.

The Commission's procedure was as follows.¹ First they required the employer to prepare a draft scheme to their satisfaction. This usually involved special investigation by an expert engineer and several meetings between the Commissioners and the firm. After a satisfactory scheme had been prepared, the employer was instructed to ask the convener of shop-stewards to bring a deputation representative of the departments affected to meet the Commission at the firm's office. At the same time the Commissioners invited to the meeting the President and Secretary of the District Committee of the A.S.E.

At the meeting the Commissioners explained the scheme with close reference to the notions and apprehensions of the men, which they were careful to ascertain so far as possible beforehand and found to vary surprisingly. At the outset it was necessary to satisfy the men that the scheme was not intended to reduce the employer's cost of production, but solely to increase the output; to demonstrate the necessity of dilution by showing that all other sources of supply of skilled labour were exhausted; and to prove that the return to conditions as they were before dilution commenced was assured, by explaining the force of the first two clauses of the Second Schedule of the Munitions of War Act, and Section 26 of the Amending Act. The majority were satisfied with these explanations. But it was sometimes objected that the Munitions of War Act might be repealed within 12 months after the War. This contingency, apparently honestly feared, was met by asking when a Government had repealed an Act passed by their predecessors—especially an Act which won the War. The real difficulty, however, behind much of the opposition to dilution was the fear that by the end of the War women would have become so proficient that employers would employ them at a lower wage than, and to the exclusion of, skilled men, as soon as the Munitions of War Act ceased to operate. The most convincing answer to this objection was that a woman would become proficient at one operation only, because during the War it was better for the sake of output to confine her to a single operation. This would be done, unless she was foolishly paid the full rate of the skilled tradesman for a single job, in which event the employer to get value for his money would be tempted to advance her to the full work of a skilled man.

¹ Memorandum by Mr. L. Macassey, 5 February, 1916. HIST. REC./R/324/15/6

To make sure that after the War a skilled or semi-skilled member of the A.S.E. would always be able to vindicate his position, the Commission promised to provide that in each establishment affected by dilution a certificate should be granted to each skilled and semi-skilled engineer in the employment of the firm at the outbreak of War, stating that he was so qualified and employed. This proposal proved most acceptable to the workmen, and did much towards reassuring them that every effort was being made to safeguard the future of the craftsmen. Immediately before the completion of the Commissioners' labours steps were taken to procure and issue these certificates, but the attitude of the trade unions had in the meantime changed, and since they took the view that the issue of protection cards under the Trade Card Scheme was a better safeguard, these certificates were never issued.

After objections to dilution in principle had been dealt with, the Commissioners explained the scheme proposed and supplied copies of it to the men present. At first the employers had been asked to explain, but this was soon found to be a mistake in tactics, since it strengthened the suspicion that the scheme was a contrivance of the employer for his own ends.

The representatives of the firm were then invited to retire while the Commissioners and the men held an informal discussion. Occasionally questions were raised whether women were capable of doing the work proposed, but more frequently the whole discussion concerned the rates of wages to be paid to the imported labour.

The Commissioners adopted the following method of dealing with this subject. The principle underlying Circulars L.2 and L.3 was explained as being that the same remuneration should be paid for output after dilution as before, provided that every effort was made to secure production. This principle satisfied the men, because it ensured that the cost of labour would not be reduced. Discussion in detail (which would have been dangerous) of the wages of particular men or classes of men affected was postponed until the scheme of dilution was in actual operation. Moreover, the principle ensured the payment of a wage to the imported worker that was discounted sufficiently to allow for inexperience and the necessity of supervision, while it permitted of a corresponding additional payment to the skilled supervisor for his work and responsibility.

This principle of remuneration having been accepted, it was possible to get the scheme started, leaving the details of wages for supervision and other skilled work to be settled by experience. But these thorny questions must come up for settlement soon, and might lead to a strike unless settled quickly. The Commissioners therefore made it a condition of each scheme that a Shop-Committee should be formed to discuss with the Management and adjust any difficulties involved in the working out of the scheme. In this way a settlement was as a rule attained. Where the committee failed, the Commission intervened, since the delay involved in reporting the matter to the Board of Trade would be dangerous.

After explaining the scheme of dilution to the men, the Commissioners arranged for a second meeting two days later, to hear what they had to say after discussing it among themselves. Then, if the employer was able to commence, and the temper of the meeting showed that the shop-stewards were able and willing to deal with any opposition among the rank and file, the scheme was fixed, and an order made bringing it into operation in three days.¹ If hostility was still apparent, further efforts were made to understand, persuade and conciliate.

This procedure for consulting the men and converting them to a willing co-operation was much more elaborate than the method sketched out for the Commissioners by the Ministry.² Even if peculiar obstructions were not encountered, it must take much longer than the time originally contemplated at Headquarters, where some disappointment was expressed at the slow progress of dilution on the Clyde. But there can be no doubt that the policy of the Commission was sound and far-sighted. More drastic methods might have secured quicker returns, though they would almost certainly have provoked a general conflagration. The conciliatory and democratic procedure of the Commission, in spite of obstacles which might almost be called desperate, paved the way for a remarkable and enduring success.

VII. Dispute Concerning Circular L.2 and Strike at Messrs. Lang's.

At the first meeting at Messrs. Lang's works a controversy arose over the interpretation of Circular L.2, Clause 1.

Women of 18 years of age and over employed on time, on work customarily done by men, shall be rated at £1 per week. . . . This, however, shall not apply in the case of women employed on work customarily done by fully-skilled tradesmen, in which case the women shall be paid the time-rates of the tradesmen whose work they undertake.

It was proposed³ that women should be employed on the scraping of lathe beds, work hitherto done by skilled tradesmen. The men contended that women so employed must in accordance with the provisions of L.2 be paid from the outset the skilled men's rate. On the other side it was urged that this scraping was only a part (and an easy part) of the skilled man's work, and therefore the woman was not entitled to his full rate.⁴ Which was the more reasonable view can hardly be doubted; but the wording of the clause was not clear, and the men were determined if possible to exclude women from the

¹ See Appendix XVIII.

² See Appendix XVII.

³ M.W. 81953.

⁴ *Conference on Dilution, 24 February*, pp. 12-17. Mr. Kirkwood, on behalf of the men at Parkhead Forge, argued that if a job was split up in this way, the woman would naturally do the easier part, but the skilled man would be left with the more difficult parts, and being continuously engaged on these must work harder than before. The employer ought not to benefit by dilution, and therefore the cost of the job would remain the same. But since the man's work was increased, he ought to receive the larger share of the total wages paid on the job, the smaller share going to the woman. This principle was accepted and embodied in the scheme of dilution adopted at Parkhead. HIST. REC./R/324/16.

manufacture of machine tools. It was therefore necessary to refer the clause to the Minister for his interpretation. The following question was submitted: Is a woman taking the place of a skilled man on a job (a) part or (b) whole entitled to the full skilled rate, and if so from when?

On 29 January Sir H. Llewellyn Smith replied:—

“(1) That where a woman is introduced to perform a part of the work previously performed by a skilled man she is not, in the opinion of the Minister, entitled by the terms of Circular L.2 to receive the full district rate customarily payable to that skilled man, inasmuch as she is not performing in its entirety the work customarily done by the skilled man. If, however, in the opinion of the employer and the representatives of the men in the shop concerned, the nature of the work and the degree of efficiency acquired by the women are such as justify the subsequent application of the district rate, there is nothing in the circular to preclude that rate being eventually paid.

“(2) That where a woman takes the place of a skilled man on time-rate and performs fully the work customarily done by such a man she is entitled to receive the full time-rate customarily received by such a man as soon as her work can be regarded as fairly comparable to that of the man whom she has replaced.

“(3) As regards the further question raised, viz., the date from which the woman is in accordance with the above answer entitled to receive the full time-rate customarily received by the skilled man, the Minister desires me to say that the Circular L.2 does not fix the length of the period of probation. It seems, however, to the Minister that this period should be comparatively short, and that during such period the woman should receive a rate of remuneration which, while being less than the full time-rate, should in no case be less than 20s. per week.”

On 31 January the Commission instructed Messrs. Lang to proceed with their scheme as follows¹:—

“The Commissioners appointed by H.M. Government to effect dilution of labour in the Clyde District hereby direct that Messrs. John Lang & Sons and the workmen in their employment shall immediately put into operation and give full effect to the scheme of dilution of labour hereto annexed. This scheme is approved on the understanding that any departure during the War from the practice ruling in your establishment prior to the War shall only be for the period of the War; that no change in practice made during the War shall be allowed to prejudice the position of the workmen in your employment or of their trade unions in regard to the resumption and maintenance after the War of any rules or customs existing prior to the War,

and that the various provisions of the Munitions of War Acts 1915 and 1916 will be complied with by you and your workmen. The Commissioners direct that a copy of this communication be posted and kept in a conspicuous place in your establishment."

On the same day similar instructions were sent to Messrs. Beardmore and Messrs. Weir.

On 1 February Mr. Brodie informed¹ the Ministry that he had placed the Minister's interpretation of Circular L.2 before the Paisley Committee of the A.S.E., "who now instruct me to intimate to you that they refuse to accept the interpretation." And on the same day 400 men employed by Messrs. Lang went on strike.

The Commissioners at once drew up and issued the following proclamation to the men on strike² :—

"1. On 31 December, 1915, the National Conference of the A.S.E. agreed with the Prime Minister to accept 'on behalf of the Conference and membership of the Society, the scheme of dilution and to co-operate actively therein, provided that the Government pledge itself to incorporate in the Bill (to amend the Munitions of War Act) the power to enforce the rates of pay and conditions of labour as set out in Document L.3 as well as L.2 in controlled establishments.'

"2. To assist in meeting the urgent need of skilled men, the Commission appointed by order of H.M. Government put into operation in the above works a scheme for releasing certain skilled men from less important work, transferring them to more skilled work and replacing them by women.

"3. The fundamental principle of the scheme is that equal payment shall be made to women as to men for equal work.

"4. After meeting the men's representatives on several occasions only one point remained in doubt. It was therefore agreed between the Commissioners and the men's representatives that this point (an interpretation of L.2) should be referred to the Government for decision in accordance with the provisions of that document.

"5. A decision has been given, and, notwithstanding the vast consequences of a strike, the solemn agreements which the men's representatives made with the Government, and the adequate provisions for the settlement of all differences, the skilled men at Messrs. Lang's, Johnstone, have ceased work.

"6. In pursuance of the ample powers entrusted to the Commissioners, adequate arrangements have been made for affording full protection to those who desire to return to work, and for dealing with those who assist in prolonging the strike.

¹ M.W. 81953.

² M.W. 84372.

"7. The Commissioners desire to make it clear that there can be no bargaining, either directly or indirectly, with the men while on strike, and no discussion of any differences until work is resumed."

At the same time arrangements were made to bring in 50 constables from other districts, who should be on duty at the works at 6 o'clock on the morning of 2 February, and the Chief Constable was instructed that peaceful picketing was forbidden.¹

In the meantime the Ministry had informed² the Executive Council of the A.S.E. of the strike and requested them to telegraph to the men's representatives calling for an immediate resumption of work. On 2 February the Executive replied, complaining that they had not been consulted about the setting up of the Dilution Commission, and expressing surprise at the Minister's interpretation of Circular L.2, which was entirely contrary to that given by the Munitions Labour Supply Committee when they conferred with that body. Moreover, they had understood that before such an interpretation was given or women were admitted to the higher branches of the engineering trade that Committee would have been consulted. Was the Minister's interpretation final? The Executive Council were prepared to take steps to secure the return of their men to work if the Ministry would grant their Society a conference to reopen the question at issue.

The same evening a conference took place at the Ministry in Dr. Addison's room at which the following agreement was made³ :—

"The Minister of Munitions is prepared to grant an interview to the Executive Council of the A.S.E. with a view to hearing their objections to the interpretation given by him to the provisions of L.2 as affecting the employment of women at Messrs. Lang's. Failing an understanding being arrived at, recourse will be had to machinery provided by Section 8, Munitions of War (Amendment) Act, and the decision shall be retrospective. The Executive Council undertake to secure a prompt resumption of work. The Minister of Munitions is not able to enter into any understanding as a condition of the cessation of an illegal strike."

Accordingly the Executive Council telegraphed the same night instructing "all members who have ceased work at Lang's to immediately resume work. The matters in dispute to be further considered by the Executive Council and the Ministry of Munitions immediately on resumption of work."

On 5 February Mr. Macassey informed⁴ the Minister that the men would have accepted his interpretation but for a message which they received from the Council of the A.S.E. It was regrettable that circumstances did not admit of holding the Society to their bargain. "The fact that any conditions of L.2 and L.3 may be made the subject of negotiations and possibly arbitration between the Ministry of

¹ M.W. 81953.

² *Ibid.*

³ *Ibid.*

⁴ Memorandum by Mr. Macassey, HIST. REC./R/324/15/6.

Munitions and the A.S.E. has already made the work of the Commissioners more difficult. Lang's men will return on 7 February. In view of that and the fact that they went out against the interpretation of L.2 which we were unconditionally enforcing (but which, apparently, is now to be referred for arbitration under Section 8 of the Amending Act), it would in our view have been a mistake to prosecute them. The situation is kept well in hand by the local police, and all necessary protection is afforded to the women and the few men who refused to strike."

The men returned to work on 7 February. On the 24th Mr. Lloyd George received a deputation of the A.S.E. The interview was long and at times stormy. The Engineers contended that however a job customarily done by a skilled man might be subdivided, and however simple the parts of it assigned to a woman might be, she was entitled under the terms of L.2 to the full rate of the skilled tradesman. The Minister maintained his previous interpretation. The Engineers were nettled at the manner in which the Munitions Labour Supply Committee had been shunted. The Minister complained that he could never get a firm bargain with the Society. They only used the concessions which he made as opportunities for raising new obstacles to the introduction of dilution. And all the time contracts vital to the Army and the Nation were being held up for want of labour. The Engineers retorted that L.2 and L.3 had not yet been made mandatory, in spite of the Prime Minister's pledge on 31 December. Sir H. Llewellyn Smith said the Order would be signed that day. Finally, the Minister pointed out that he had only determined the principle by his interpretation; the question what wages the women should receive would be decided, if there was a dispute, by the Tribunal which he was setting up under Section 8 of the Amending Act. With these assurances Mr. Brownlie said that his Society would be satisfied and could now go forward with greater confidence to fulfil the promise they had made to Mr. Lloyd George and the Prime Minister.

VIII. The Suppression of "The Worker."

In the meantime another trouble had come to a head. On 8 January the Clyde Workers' Committee had started the issue of a weekly paper called *The Worker*.¹ The first three numbers did not bring the paper within the grasp of the law; but the fourth number² contained an article entitled "Should the Workers Arm? A Desperate Situation." The workers were being attacked. A savage and persistent offensive was being launched against their rights and liberties. The enemy was the owning class, small, cunning, treacherous, well-organised and highly respectable.

"In order to keep the people obedient and pliable they employ many and divers agents—gaffers, managers, editors, preachers, law-makers, and, let it be confessed with a lump

¹ M.W. 74773, 74773/3.

² *Worker*, 29 January, 1916.

in the throat, sometimes trade union leaders. . . . In order that we might not reproach them with disorderly conduct they commit all their outrages in a scrupulously legal manner. . . . They pass a Munitions Act to chain the worker to his master. They 'dilute labour' to call into being an invisible army which can be mobilised at short notice to defeat the struggles of striking artisans. They place a gate before our lips, and call it a Defence of the Realm Act. They clap agitators into jail, and suppress popular newspapers for speaking the truth at inconvenient moments. They multiply their plunder by raising food prices, at the same time preventing the workers from taking suitable steps to increase their wages proportionately. Finally, they pass a conscription law to compel reluctant men to fight and bleed in defence of 'their' country. Their conscription law, by the way, will not apply to married men—until it is suitably amended; nor will it be used for industrial slavery—until the necessary commas and semicolons are manipulated."

"The attack of the masters must be resisted. The workers must fight. What shall the weapon be? . . . Trade Unionism, as we have hitherto known it, seems a suitable weapon for gaining laborious concessions of so many farthings an hour, but the present crisis finds it unequal to the attack. Sending Labour M.P.'s to Parliament seems even less successful. The chloroforming influence of that assembly has ruined many an honest man."

"These instruments having disclosed flaws and shortcomings, the workers everywhere, not on the Clyde alone, are turning their thoughts in other directions. There is a fascinating attraction in the idea of meeting force with force, violence with violence. The eyes sparkle, the blood courses faster in the veins, when one contemplates the possibilities of an intelligent working class methodically planning to crush the masters by forcible methods. It is undeniable that many of the more thoughtful among the toilers would consider their lives had not been spent in vain if they could organise their comrades to drilled and armed rebellion. Their minds turn pleasurably in the direction of rifles, bombs and dynamite."

"If the internal clash of armed forces can be avoided in this country it should be avoided. There is another method which, if conducted on a thorough scale, should prove completely successful. A worker's labour-power is his only wealth. It is also his strongest weapon. The irritated cart horse that snorts and kicks in impotent rage makes no impression on its master so long as it continues to drag its load along the way. But when it sticks its hoofs into the macadam and refuses to budge, then the driver is up against a tough proposition. But the workers need not think of using this weapon so long as they are split and divided into sects and groups and crafts.

To be effective they must *organise as workers*. An organisation that would include all the workers, skilled and unskilled, throughout the entire Clyde area would prove irresistible."

On 1 February the Ministry suggested to the War Office that the *Worker* should be suppressed, under Regulation 51 of the Defence of the Realm Regulations, on account of the article quoted above.¹ This was done by the competent military authority. What action should be taken against the persons responsible was not decided till some days later. Three courses were open—to deport them under Regulation 14, to proceed summarily, or by way of indictment. The Commissioners and the Ministry at first favoured deportation as the quickest and least conspicuous method of removing the men from the Clyde district. But the Lord Advocate decided to indict, since it was, in his opinion, of great importance that the case should be heard by Jury, and a verdict in such circumstances would have considerable effect.

Accordingly on 7 February W. Bell, business manager of the press which printed the *Worker*; W. Gallacher, Chairman of the Clyde Workers' Committee; and J. W. Muir, editor of the *Worker*, were arrested and charged with attempting to cause sedition and disaffection among the civilian population, and to impede and restrict the production of munitions of war. The writer of this article was not discovered.

The immediate consequence of the arrests was a strike of more than 2,000 men at Messrs. John Brown, G. and J. Weir, Albion Motor Car Company, Coventry Ordnance Works, W. Beardmore, Dalmuir, and Barr and Stroud.² At Messrs. Weir's nearly all the shop-stewards went on strike, and 15 of the 18 members of the shop committee just formed to deal with difficulties arising out of dilution. The strike, however, soon collapsed. The tension was at once relieved by admitting the accused men to bail, a course to which the Crown was at first opposed.³ And as soon as the workmen began to understand that they had thrown down their tools in sympathy with men who were advocating armed rebellion, bombs and dynamite, there was a strong revulsion of feeling. Many returned to work on 9 February, and all were back the next day.

The accused men were tried in Edinburgh on 14 April, and convicted. Gallacher and Muir were each sentenced to one year's imprisonment, Bell to three months. At the same time John Maclean was put on his trial for making incendiary speeches, and on conviction was sentenced to three years' penal servitude.

IX. Progress of the Dilution Commission's Work.

After this stormy beginning the Commissioners made some headway. Their policy of full and free discussion with the men in the departments directly affected converted a sullen and obdurate temper

¹ M.W. 74773/3.

² M.W. 85994, 85994/2.

³ M.W. 74773/5.

of opposition into a critical acquiescence, and at last evoked a real willingness to co-operate in giving dilution a fair trial. The schemes were worked out with great care. Each scheme was modelled upon a basis appropriate to the individual conditions of the particular works, "a basis not of introducing women here and women there as the immediate circumstances of the case might permit, but of putting them on a considered plan at the bottom of the industrial ladder, and of providing for the upgrading of the semi-skilled men higher up the ladder so as to squeeze out skilled men at the top, the skilled men so released being used in part as supervisors, but for the most part to form the nucleus of a night shift, which can later be fully organised when the women first introduced come on and can themselves be upgraded, so as to admit more unskilled women being introduced and more semi-skilled men and skilled men being released."¹

At first some delay was experienced, because employers had not provided the accommodation necessary before women could be brought into the works.² But the Commissioners then gave instructions that the necessary preparations should be made some time before they took up the negotiations with the men, since they found it most important to get the scheme started as soon as it had been accepted. From the outset the local officials of the A.S.E., Mr. Brodie and Mr. Bunton, co-operated heartily with the Commissioners, although their position was far from easy, being subject to the subterranean intrigues and invidious criticisms of a bitter and irreconcilable minority.

After dilution had been introduced into a number of the most important works, the Commissioners on 22 February sent a circular letter³ to all the other controlled establishments in the Clyde district instructing them to prepare schemes.

"The growing scarcity of skilled workmen, with the increasingly urgent need for their services in all branches of munitions manufacture, is a matter of grave anxiety. The only effective source of supply is to be found in dilution of labour. By that is meant the release for the period of the War of every possible skilled man from work which might with reasonable efficiency be done by female, or, in special cases, unskilled male labour, the skilled man so released acting as supervisor of the unskilled labour replacing him, or undertaking more responsible work. . . . The Commission cannot leave unaffected any practicable rearrangement of works organisation which will secure the release of even one skilled man from work reasonably capable of execution by a woman. The Commission regrets to find, on the part of some employers, a failure to realise the national danger of wasting skilled men's services, by continuing to restrict them to work which unskilled labour might perform. In other cases the Commission encounters a misconception quite refuted by recent experience, that woman labour is practicable only in repetition work and not in general

¹ M.W. 58424/22.² M.W. 84372.³ M.W. 58424/20.

engineering. In certain instances an apprehension seems to prevail that dilution may lead to the transfer of skilled men from an employer's establishment to that of a competitor. Such views are happily exceptional."

The employer was then requested to send in five days a detailed scheme of dilution in his works, providing for the release of the maximum number of skilled men and for their replacement by women, or, in unavoidable cases, by unskilled men.

"On receipt of your scheme, one of the Commissioners' experts will inspect your establishment in company with your representative to report whether, in his view, your proposals will effect all possible dilution. The Commission will then prescribe a draft scheme for your establishment, and give directions for its submission to your workmen for their consideration. If necessary, the Commission will meet the latter and discuss objections. The Commission will then adjust the scheme into final form and issue an order for its partial inception and progressive application. In connection with Admiralty work, the Commission is working in conjunction with Engineer-Commander Jenkin, R.N. . . . Adequate lavatory and cloakroom accommodation must be provided. . . . Once the finally adjusted scheme of dilution is initiated by the Commission in your establishment, you may rely upon the Government taking adequate steps to ensure that it is carried into full effect."

On 29 February the Commissioners reported¹ to the Ministry that schemes of dilution were in operation at 10 establishments, which provided for the release of 740 men and apprentices for more difficult or responsible work and the introduction of 1,333 persons, of whom the great bulk were women, and 30 schemes were in course of adjustment which would release 853 men to be replaced by an equivalent amount of low-skilled labour. With a few exceptions these schemes did not affect shell work. In the Clyde district the machining of shell was already done almost entirely by unskilled labour; and the new shell factories would be diluted from their start without the intervention of the Commission or the Ministry of Munitions.²

X. Demand for Advance in Wages from 17 Trade Unions.

Towards the end of 1915 a collective application was made by 17 trade unions to the Shipbuilding and Engineering Employers' Associations for an advance of 2d. an hour on time-rates and its equivalent on piece-rates. No settlement having been reached, the difference was reported to the Board of Trade under Part I. of the Munitions of War Act, and referred by them to the Committee on Production, who heard the representatives of both sides on 20 January and 10 February, 1916. On 3 March the Committee issued their

¹ M.W. 58424/22.

² HIST. REC./R/324/15/9.

award, finding that the claim had not been established, except in the case of those grades of labour which had received $\frac{3}{4}$ d. an hour or 3s. a week on time-rates or $7\frac{1}{2}$ per cent. on piece-rates a year before.¹ To these further advances were granted of $\frac{1}{4}$ d. an hour or 1s. a week on time-rates or $2\frac{1}{2}$ per cent. on piece-rates, thus bringing them to a level with the increase granted in March, 1915, to the skilled men.

Even if the Committee had so desired, they could hardly have decided otherwise in view of the minute approved by the Government in November, 1915.

"His Majesty's Government have given earnest attention to the financial position of the country, to the great and increasing demands which will still be made upon its resources to meet the needs of the War, and to the imperative need for economy in all forms of expenditure and consumption both public and private. They have also had regard to the general advances of wages that have already been given since the beginning of the War, and to the measures already taken to tax or limit the profits of undertakings. His Majesty's Government have come to the conclusion that in view of the present emergency any further advance in wages (other than advances following automatically from existing agreements) should be strictly confined to the adjustment of local conditions where such adjustments are proved to be necessary."

Apart from the arguments stated in this minute, it must be noted that although the cost of living had risen very much more than 10 per cent.—the increase awarded in rates of wages—earnings had risen generally much more than 10 per cent., owing to the regularity of employment, overtime, Sunday work, the removal of restrictions on output in piece-work, and various bonuses and irregular advances, such as "time and a bit" and "Hallelujah" rates. Consequently the position of a large number of the workmen employed on munitions in the Clyde district was much more favourable than a consideration of the district rates would suggest.²

¹ See Vol. IV., Part. II., Chap. II., Sect. I.

² No complete figures are available, but the following statistics compiled by the Wages Section of the Ministry in June, 1916, give some idea of the position in the Clyde district:—

Trade.	No. of men		Average earnings per man		% of increase.	Average No. of hours worked.		% of increase.
	before War.	1916.	before War.	1916.		before War.	1916.	
			£ s. d.	£ s. d.				
Fitters	3,813	4,637	2 2 9	3 1 4	43.5	54.4	62.1	14.2
Turners	1,139	1,410	2 7 9	3 4 3	34.6	54.8	61.5	12.3
Shipwrights ..	2,125	2,287	2 4 4	2 13 6	20.7	53.8	56.1	4.2
Joiners	1,938	1,823	2 1 9	2 9 1	17.6	53.4	54.6	2.3
Wood-working Machinists	291	252	2 0 1	2 6 1	15.0	53.4	54.6	2.3
Painters	405	417	2 9 7	2 10 7	2.0	57.6	53.4	-7.3
Shipsmiths ..	418	441	2 10 8	3 6 3	30.7	51.1	54.9	7.5
Sheet Iron Workers	269	423	2 3 1	2 12 0	20.7	52.0	54.1	4.1
Drillers	937	972	2 7 10	3 5 8	37.3	46.0	53.9	17.3

XI. The Strike at Parkhead Forge and other Shops engaged on Howitzers.

On Friday, 17 March, 1,000 men struck work at Parkhead Forge.¹ They were engaged on heavy howitzers and naval ordnance, and were well aware of the urgency of the work. The origin of the strike was a demand that the convener of shop-stewards, Mr. Kirkwood, should have the right during working hours, without asking the permission of the management, to leave his work and go into any other department he chose to investigate what was being done in the dilution of labour, to interview the women introduced, and to examine their proficiency, their rates of wages, and whether they were members of any trade union.

The claim was based on the first and second clauses of the Parkhead Scheme of dilution, which provided (1) that the income of the new class of labour should be fixed not on the sex, previous training, or experience of the worker, but on the amount of work performed, every effort being made to secure the maximum output; (2) that a committee appointed by the skilled workmen should be accepted by the employers with power to see that this arrangement was loyally carried out; failing agreement between the employers and the Committee, the matter should be referred to a tribunal mutually arranged or else appointed by the Board of Trade.

On 15 March this claim was placed by a deputation before the management, who replied that they could not grant it, but they were prepared to afford the convener of shop-stewards all reasonable facilities for ascertaining what was being done under the scheme of dilution on his asking permission to go into the different departments. Two days later the men presented an ultimatum to the firm, and at noon they went on strike.² In the afternoon some of the shop-stewards met Sir William Beardmore, who said that the matter was out of his hands, since he had reported it to the Commissioners.³ He read over to them the clause in the Munitions of War Act prohibiting the stoppage of work. Mr. Kirkwood said: "We do not recognise that Act; we look upon that as a scrap of paper—it is nothing to us." Sir William asked why they had not brought the local officials of the A.S.E. instead of taking the matter into their own hands. Mr. Kirkwood replied: "We do not recognise them, and in any case they are our paid servants and have to do what we tell them; but we do not recognise them and we have taken this matter into our hands ourselves." He added: "You know, Sir William, I told you if you did not give me the privilege I asked for the men would come out on strike, and you said you did not believe it, but we have come here to-day to tell you that they have gone on strike." Sir William Beardmore replied: "If there is any question between us, refer this matter to the Commissioners. If the Commissioners say that I am wrong, and if they grant you the right to your convener of having the privileges asked for, then I will

¹ M.W. 103670.

² M.W. 103670/33.

³ C.E. 186/25.

at once concede the question ; but unless they do that, I must absolutely decline to allow your shop convener the privileges asked for."

On 21 March the night staff went out on strike at the North British Diesel Engine Works in sympathy with the men at Parkhead, and the day shift followed their example the next morning. They were engaged on the rough machining of howitzer barrels and breech mechanisms and the manufacture of sight gear and other parts of field guns.

On the same day the men in the gun department at Messrs. Beardmore's works at Dalmuir intimated that they would not proceed with the scheme of dilution agreed on, and on the 22nd they gave notice that they intended to go on strike the following morning.

On 27 March 300 men went on strike at Messrs. Weir's, who were engaged on howitzer parts and auxiliary machinery for warships, and on the same day a number of men engaged on naval gun mountings for H.M.S. " Renown " and H.M.S. " Resolution " threw down their tools at the Coventry Ordnance Works. On 28 March the men went on strike at the works of Messrs. Duncan Stewart & Co. and Messrs. Mavor & Coulson, sub-contractors of Messrs. Beardmore's. And on the next day a number of men struck work in the establishment of the Albion Motor Car Co.

Whether or not from the outset a deliberate plot had been formed to strike at the most vital work of the Ministry of Munitions, the guns and howitzers required for the great offensive of 1916, it cannot be doubted that as soon as the men at Parkhead came out the occasion was exploited to the full with that end in view. It was no coincidence that the men engaged on artillery were brought out in one shop after another. But so skilful was the organisation of the strike leaders that no clear evidence of incitement could be found against any of them. Members of the Clyde Workers' Committee were certainly responsible. But they passed no resolutions, they rarely even used language at their meetings which could be described as inciting. Yet such was their ascendancy over the rank and file that the men threw down their tools without asking or receiving a reason.

The strike at Parkhead Forge was an act of criminal levity. There was no real grievance to be remedied, no definite object to be attained.¹ The worst that the strikers could allege in their manifesto to their fellow-workers was that some soldiers released from the Colours were Englishmen and had refused to join a trade union, that some unskilled men brought into the shell shop were paid less than the rates specified in Circular L.3, an allegation already investigated and refuted by the local officials of the A.S.E., that the established right of the convener of shop-stewards to go where he liked without permission had been curtailed, a statement which was untrue, since no such privilege had ever been granted. Even if there were any ground for grievance, a shop committee had been set up, and it was well understood alike by the management and by the men that the Commissioners

¹ M.W. 103670/3.

could be called in at any moment to deal with it if the procedure laid down by the Munitions of War Act was thought dilatory or unsuitable. It is hardly conceivable that the men would have come out on the pretext chosen unless a spirit of recklessness and defiance, fostered by the continual unrest of the previous year and aggravated by the recent refusal of an advance of wages, had blinded them not merely to the urgent needs of their country, but to the folly of challenging the security of the nation, without a cause which might be expected to elicit sympathy and support.

When the men at Parkhead Forge came out the Commissioners were in London,¹ but on 20 March Mr. Macassey informed² Mr. Brownlie of the strike, and asked him to repudiate it officially on behalf of the A.S.E. On the 22nd the Council of the Society telegraphed to Mr. Bunton that they entirely disapproved of the strike at Parkhead, but awaited his report.³ The next day they issued instructions that benefits must not be paid to the strikers, and added, "The Executive Council, having regard to the national interests and the undertakings given to the Government on behalf of the Society, deprecate all unconstitutional strikes or stoppages of work that will impede the output of war material."

In the meantime the situation grew worse from day to day. Some of the Ministry's advisers urged remedies which would not have eased it.⁴ The Clyde Workers' Committee ought to be suppressed; if the requisite powers did not exist under the Defence of the Realm Regulations, they should be taken forthwith; it was neither necessary nor practicable to obtain the names of the members or to specify the offences with which they were charged. Martial law ought to be proclaimed in the Clyde district. To prevent picketing the Trade Disputes Act should be suspended. Something drastic, immediate and comprehensive must be done.

On 24 March the Commissioners reported on the position.⁵ The movement was evidently engineered by the Clyde Workers' Committee; but the bulk of the men were not in sympathy with those who had assumed command, although owing to veiled threats and an apparently rooted dislike to act against the advice of these leaders they had fallen in with the proposal to cease work. It was most difficult to get evidence which would hold good in a court of law against the ringleaders; but strong action was necessary if their influence was to be destroyed. They had so often acted with impunity that they were like spoilt children, and must be treated in the same way. The Commissioners suggested that the Council of the A.S.E. should be asked to repudiate the strike vigorously and to call upon the men to resume work. All the prominent leaders who had taken part in the stoppage should be removed from Glasgow. The Procurator Fiscal advised that this could be done satisfactorily under Regulation 14 of the Defence of the Realm

¹ M.W. 103670.

⁴ M.W. 103670, 103670/2.

² M.W. 103670/2.

⁵ M.W. 103670.

³ *A.S.E. Journal*, April, 1916, p. 11.

Regulations. The Military Authorities were prepared to deport, if they received a telegram from the Minister asking for such action and a telegram from the War Office approving it.

On the same day a meeting was held in the Minister's room, at which the Commissioners' report was considered.¹ Both Mr. Lloyd George and Mr. McKinnon Wood were in favour of firm action. But was the evidence sufficient? In view of criticism in Parliament it was essential that the men deported should be guilty; to remove the wrong persons would be a fatal error. The question of proceeding under Regulation 42 was carefully weighed. But it would involve delay, whereas prompt action was imperative. It was therefore decided that removal under Regulation 14² was the only possible solution at the moment. Accordingly, the following telegram was sent by the Solicitor-General to the Procurator Fiscal:—

"The Minister of Munitions has decided that the ringleaders who incited the strike should be dealt with by deportation, if there is reasonable evidence to your and the Commissioners' satisfaction that the men have incited to strike. The Minister wishes an immediate report to-day if possible to the military authorities with a view to action under Regulation 14. 'Reasonable evidence' is only such as shows a *prima facie* case of contravening Regulation 14."

In accordance with these Instructions, Kirkwood, Messer, Haggerty, McManus and Shields were arrested on the night of 24 March and deported the following day. Wainwright could not be found, but two days later he was arrested and removed on the 27th. All these men were members of the A.S.E., and all were employed at Parkhead Forge except Messer and McManus, who were in the employ of Messrs. G. & J. Weir.

The immediate effects of this action were strikes at the works of Messrs. Weir and the Albion Motor Car Company.³ But the Government determined to adhere to their policy. At a meeting held on 28 March

¹ M.W. 103670.

² "Where a person is suspected of acting, or of having acted, or of being about to act, in a manner prejudicial to the public safety or the defence of the Realm, and it appears to the competent naval or military authority that it is desirable that such person should be prohibited from residing in or entering any locality, the competent naval or military authority may by order prohibit him from residing in or entering any area or areas which may be specified in the order, and upon the making of such an order the person to whom the order relates shall, if he resides in any specified area, leave that area within such time as may be specified by the order, and shall not subsequently reside in or enter any area specified in the order, and if he does so he shall be guilty of an offence against these regulations. . . . Any such order may further require the person to whom the order relates to report for approval his proposed place of residence to the competent naval or military authority and to proceed thereto and report his arrival to the police within such time as may be specified in the order, and not subsequently to change his place of residence without leave of the competent naval or military authority, and in such case if he fails to comply with the requirements of the order he shall be guilty of an offence against these regulations."

³ M.W. 103670/2.

in Mr. Bonar Law's room in the House of Commons, it was decided to deport the shop-stewards at Messrs. Weir's if there was sufficient evidence against them. Accordingly Bridges, Kennedy and Glass were arrested and deported the following day.

On 28 March Dr. Addison made a full statement¹ in the House of Commons, by which the country was authoritatively informed of the main facts of the strike, its trivial origin, its sinister development, its disastrous effects, and its disavowal by the Council and the local officers of the A.S.E. Public opinion throughout the country was incensed at so treacherous an attack against the Trade Unions, the Government, the Army and the Nation. Even the most extreme opponents of the War and Mr. Lloyd George's policies recognised that the strike was indefensible. Its back was broken. And sixty of the strikers at Messrs. Weir's returned to work the following day.

On 29 March thirty of the strikers at Parkhead, Whiteinch and Dalmuir were brought before a General Munitions Tribunal.² Counsel for the defence asked for an adjournment, since his chief witnesses had been kidnapped from their homes. Sheriff Fyfe was disposed to grant this request on condition that the men promised to resume work immediately. But after a consultation between the accused and their supporters in the body of the court, the men maintained that their leaders must be released before work could be resumed. The trial therefore took its course, and each of the defendants was fined £5, the fine to be deducted from wages at the rate of £1 a week.

On 30 March a special meeting of the Council of the Federated Engineering and Shipbuilding Trades was held in the House of Commons at the request of the National Advisory Committee.³ The following resolution was carried by 18 votes to 2 :—

“ That this meeting regrets to learn of the series of strikes amongst munition workers in the Clyde district, and, having regard to the serious situation created by the stoppage of the supply of munitions so urgently required to defend their fellow-members in the trenches, urges them to resume work at once, and, whatever their grievances are, to have them brought before their respective trade unions for adjustment. Further, that the executives of the affiliated unions will not recognise any stoppage of work on the part of munition workers where the provisions of the Munitions of War Act have been violated.”

The break up of the strike was not as rapid as it might have been, because a great demonstration was being organised for Friday, 31 March, as a protest against the refusal of the Committee on Production to grant an advance in wages. The question was seriously debated whether this meeting could be stopped.⁴ But the Government

¹ *Parliamentary Debates* (1916), *H. of C.*, LXXXI. 564.

² *M.T.* 107/5.

³ *Report of Proceedings*, p. 139.

⁴ *M.W.* 103670/3.

decided that any interference would be inexpedient. The meeting accordingly took place on Glasgow Green. There were no disturbances; the speeches delivered were studiously moderate; and the speakers were careful to dissociate themselves from the strikers. After the meeting the men marched in procession through the city. Their icy reception left no room for doubt how the citizens of Glasgow regarded the work of the past fortnight.

Work was resumed generally the following week. By 4 April all had returned except 20 at the works of the Albion Motor Car Co. and 68 at Dalmuir, including T. Clark, the Treasurer of the Clyde Workers' Committee. On the 5th 33 men still remained out. Since this defiance appeared to the Commissioners likely to cause a recrudescence of the trouble, they decided¹ that Clark should be deported at once, and the others should be warned that they too would be removed unless they resumed work on the 6th. Some turned out to be ill, others could not be traced, the rest came back. The men at Messrs. Mavor & Coulson's on resuming refused to work overtime. The Commissioners therefore instructed the firm to ask each man individually to work overtime each night and to warn him that refusal would be regarded as persistence in striking. This method proved quite successful. Finally, on 13 April, the men who had stayed out on 4 April were brought before a General Munitions Tribunal and fines amounting to £230 were imposed, two shop-stewards, who maintained that their conduct was justifiable, being fined £25 each. ♦

The action of the Commissioners not only suppressed a very dangerous strike, but purged the Clyde district at least for many months of a disease which threatened to become inveterate. They restored peace to the workshops and mollified the sullen, irritable and suspicious temper of the men, which might at any moment break out into open antagonism and was a constant drag upon real productiveness. The primary cause of their success was their determination to understand the men's point of view, to explore their grievances, their fears and their prejudices, to listen to them and reason with them, and to adopt every practicable remedy and safeguard. Had the ground not been prepared in this way, repression would have provoked reprisals, and severity would have incited to fresh excesses. When the implacable minority found their power vanishing before these conciliatory methods and made a false move by engineering a strike in the face of reason and loyalty, public opinion was concentrated against the malcontents, not by rhetorical denunciation but by a plain statement of the facts, confirmed by the repudiation of the strike by the trade unions. At the same time the sudden removal of the ring-leaders disconcerted and dismayed their followers. No doubt deportation without trial was open to objection. It was contrary to a fundamental principle of liberty, which ought never to be departed from in times of peace nor resorted to in time of war, if any other procedure is possible, without peril to the State. But swift and certain action was imperative, whereas trial by jury would have been slow

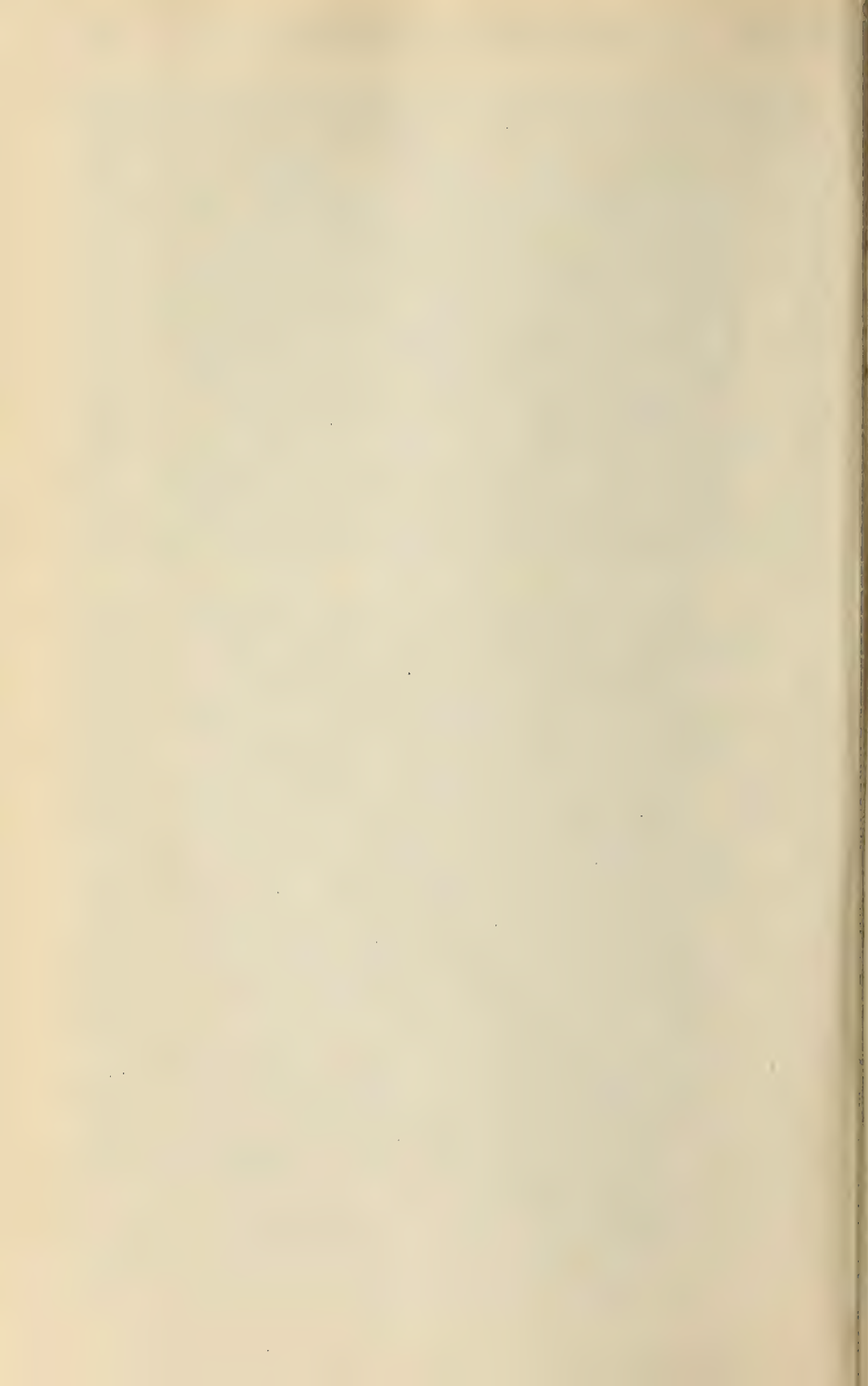
¹ M.W. 103670/6.

and uncertain. For direct evidence of incitement to strike was difficult to obtain owing to the wariness of the ringleaders. It cannot be maintained, however, that any substantial injustice was done. The responsibility of the men deported was sufficiently established by the fact that they were on strike and the acknowledged leaders of the strikers, even if there had been no other evidence against them. Nor should it be forgotten that if they had been convicted by a court of law they would certainly have suffered far severer punishment than deportation entailed. When the sinews of the strike had been cut in this way, the firm treatment of the obstinate remnant, who refused to admit that they were persisting in a foolish and disloyal error, served to re-establish the authority of the Munitions of War Act, and to warn all that the habit of striking work on the least provocation must be broken. Finally, it is important to recognise that the successful handling of the trouble was due to the fact that adequate powers were given to men of weight and experience on the spot to diagnose and treat the malady in all its ramifications. The Commissioners' knowledge of the locality and the community's knowledge of them gave a precision and authority to their action which subordinate officers acting on instructions from London could never rival.

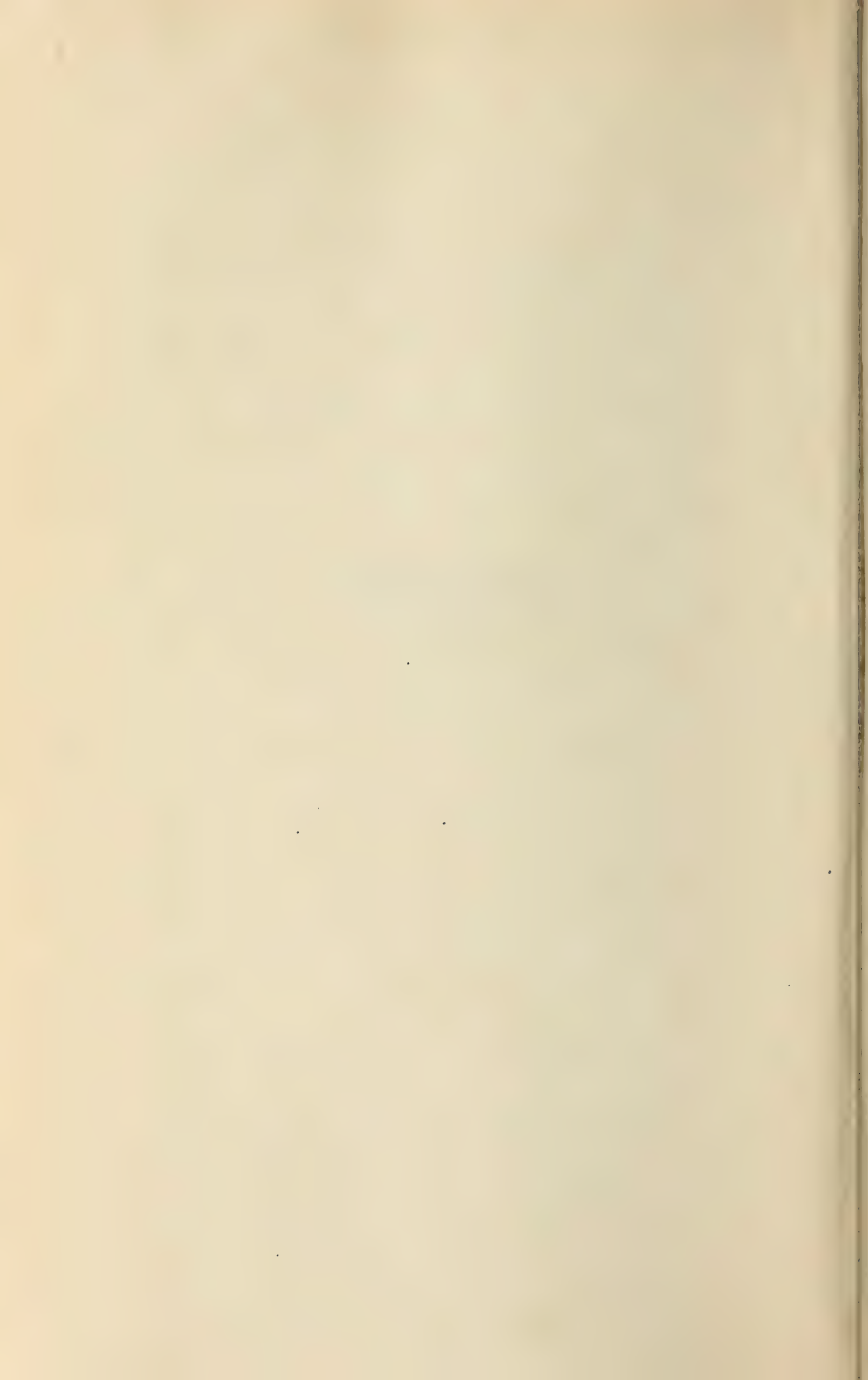
After these troubles had been overcome the Commissioners made rapid progress. In a survey of their first six months' work they were able to report¹ that they had arranged schemes of dilution in 150 controlled establishments, under which 7,436 men and apprentices would be released for work more appropriate to their experience or strength, while 10,021 persons, of whom the great majority were women, would be introduced. Of the new-comers only 815 would be employed on shells. The rest, with a few exceptions, would do simple machining or fitting or light labouring. In this way it became possible in many establishments to start night shifts, in others to man the numerous new machines which were being installed, and a certain number of unskilled men were set free for military service. The Commissioners also, at the request of the Admiralty, negotiated local agreements with the Boilermakers, the Shipwrights and the Coppersmiths by which an extensive system of upgrading semi-skilled men and interchanging skilled men was made practicable, in addition to the use wherever possible of pneumatic, hydraulic or electric tools and of oxy-acetylene or other cutting or welding plant.² Finally, at the end of August, 1916, after having met on more than 1,000 occasions deputations of employers, workmen or Trade Union officers and arranged for the employment of 14,000 women, the Commissioners laid down their office and received the thanks of the Minister of Munitions and his appreciation of "their very valuable work accomplished in circumstances of exceptional difficulty."

¹ M.W. 58424/82.

² M.W. 58424/71, 72, 77.



APPENDICES



Statistics of Employment in the Munitions Industries. July, 1914, to July, 1916.¹

TABLE A I.

Employment in July, 1914, and July, 1916, in Metal and Chemical Industries engaged on Government work not less than 75 per cent. in July, 1916.

	MALES.				FEMALES.			
	Employed July, 1914.	Employed July, 1916.	% Joined Forces since July, 1914.	% Returned to Civil Work.	% Net Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.
Blast Furnaces ..	50,000	49,350	21.4	2.6	+ 17.5	95	400	2,354
Iron and Steel Rolling ..	85,000	84,660	24.7	2.5	+ 21.8	95	1,000	2,210
Tubes.. ..	25,000	24,575	24.3	6.9	+ 15.7	90	300	1,361
Ironfounding ..	75,000	70,875	26.3	2.4	+ 18.4	80	3,000	6,690
Steel Manufacture ..	55,000	67,760	20.4	2.7	+ 40.9	95	300	2,250
Wiredrawing.. ..	19,000	18,164	28.6	2.7	+ 21.5	80	4,000	7,712
Anchors, Chains ..	9,000	8,361	20.2	2.5	+ 10.6	90	1,000	1,591
Nails, Nuts, Bolts ..	19,000	17,556	23.1	1.6	+ 13.9	85	12,000	13,296
Springs	3,000	2,448	27.3	3.5	+ 5.4	90	1,000	1,789
Marine Engineering ..	66,000	85,338	17.6	4.0	+ 42.9	95	1,000	18,290
Constructional Engineering ..	31,000	25,172	33.9	2.2	+ 12.9	90	—	—
General Engineering ..	417,000	474,963	24.1	3.4	+ 34.6	90	12,000	98,880
Electrical Engineering ..	70,000	70,420	31.9	2.5	+ 30.0	85	13,000	23,634
Shipbuilding ..	180,000	213,480	21.6	4.1	+ 36.1	90	1,000	4,032
Cycle and Motor ..	88,000	86,152	35.6	3.5	+ 30.0	80	6,000	18,090
Small Arms	6,000	19,890	33.8	24.6	+ 240.7	95	1,000	8,741
Scientific Instruments ..	30,000	33,600	25.3	2.5	+ 34.8	85	6,000	8,928
Non-ferrous Metals, smelting and rolling	30,000	32,550	27.3	5.1	+ 30.7	90	3,000	4,377
Brassfounding, etc., Tubes..	45,000	40,275	26.8	2.7	+ 13.6	80	9,000	12,555
Total	1,303,000	1,425,589	326,203	44,263	404,529		75,000	236,780
								215.7

¹ The figures in these Tables are derived from the Board of Trade's Reports on the State of Employment in the United Kingdom. In the later Reports the base figures for certain industries are slightly altered by retabulation. No revised figures are, however, available for the individual industries at the dates shown here. The margin of error is not substantial.

TABLE A I.—continued.

		MALES.					FEMALES.			
		Employed July, 1914.	Employed July, 1916.	% Joined Forces since July, 1914.	% Returned to Civil Work.	% Net Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.	% Increase.
Heavy Chemicals	..	23,000	26,289	23.7	5.6	+ 32.4	80	1,000	4,526	352.6
Explosives	..	10,000	29,170	26.8	12.4	+ 206.1	100	5,000	19,715	294.3
Dyes, etc.	..	16,000	21,552	34.9	3.7	+ 65.9	75	1,000	2,344	134.4
Tar, Wood-distilling	..	9,000	9,720	23.3	2.9	+ 28.4	75	—	—	—
Total	..	58,000	86,731	15,812	3,381	41,162	—	7,000	26,585	—
Admiralty Dockyards	..	53,221	64,214	8,224	1,757	17,460	—	434	3,083	—
M.M. Establishments	..	15,691	113,277	6,232	5,062	98,756	—	11	72,418	—
War Office Establishments..	..	1,609	8,427	1,354	599	7,573	—	144	1,978	—
Total	..	70,521	185,918	15,810	7,418	123,789	—	589	77,479	—
GRAND TOTAL	..	1,431,521	1,698,238	357,825	55,062	569,480	—	82,589	340,844	—

TABLE A II.

Employment in July, 1914, and July, 1916, in Metal and Chemical Industries engaged on Government work 50-75 per cent. in July, 1916.

MALES.					FEMALES.				
	Employed July, 1914.	Employed July, 1916.	% Joined Forces since July 1914.	% Returned to Civil Work.	% Net Displace- ment or Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.	% Increase or Decrease.
Timplate	24,000	18,504	21.9	.9	— 1.9	75	3,000	3,732	+ 24.4
Hard and Hollow Ware ..	30,000	23,700	32.7	1.6	+10.1	60	8,000	11,336	+ 41.7
Tin and Japanned Ware ..	10,000	8,310	34.0	1.7	+15.4	50	10,000	12,840	+ 28.4
Locks, Keys	5,000	4,270	25.5	1.4	+ 9.5	65	2,000	2,838	+ 41.9
Blacksmithing	4,000	3,060	39.2	1.9	+13.8	55	—	—	—
Textile Engineering ..	56,000	39,872	24.6	1.3	— 5.5	50	2,000	7,684	+ 284.2
Railway Carriage and Wagon ..	20,000	16,040	24.3	1.2	+ 3.3	65	—	—	—
Carriage, Cart and Wagon ..	35,000	27,125	34.0	1.2	+10.3	55	1,000	1,860	+ 86.0
Cutlery	15,000	11,985	23.6	1.5	+ 2.0	60	5,000	5,685	+ 13.7
Edge Tools	26,000	25,064	20.7	2.9	+14.2	70	3,000	4,635	+ 54.5
Needles	1,000	1,007	24.8	1.7	+23.8	65	1,000	1,353	+ 35.3
Pens, Dies, Seals	4,000	3,232	28.1	2.2	+11.2	60	8,000	6,952	— 13.1
Pins, Hooks, Eyes	4,000	3,412	30.7	3.0	+ 8.5	50	8,000	7,720	— 3.5
Lamps, Gas Fittings ..	12,000	9,528	27.6	2.0	+ 5.0	55	3,000	3,696	+ 23.2
Total	246,000	195,109	66,679	3,844	11,944		54,000	70,331	
Soaps, Candles	21,000	18,774	42.3	3.1	+28.6	75	8,000	13,824	+ 72.8
Oil and Tallow	10,000	9,050	31.3	1.9	+19.9	65	1,000	2,370	+ 137.6
Total	31,000	27,824	12,013	841	7,996		9,000	16,194	
GRAND TOTAL	277,000	222,933	78,692	4,685	19,940		63,000	86,525	

TABLE A III.

Employment in July, 1914, and July, 1916, in Metal and Chemical Industries engaged on Government work less than 50 per cent. in July, 1916.

	MALES.					FEMALES.			
	Employed July, 1914.	Employed July, 1916.	% Joined Forces since July, 1914.	% Returned to Civil Work.	% Net Displace- ment or Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.	% Increase or Decrease.
Stove, Grate, Range	15,000	9,990	31.6	1.2	- 3.0	30	1,000	2,569	+156.9
Bedsteads	7,000	4,375	33.5	1.0	- 5.0	40	3,000	3,039	+ 1.3
Safes	4,000	2,456	28.2	1.0	-11.4	40	—	—	—
Agricultural Machinery	18,000	13,554	31.4	1.8	+ 4.9	30	—	—	—
Typecutting and Founding	2,000	1,084	30.6	0.6	-15.8	35	1,000	421	- 57.9
Watches, Clocks, etc.	4,000	3,056	29.5	1.2	+ 4.7	45	2,000	2,440	+ 22.0
Gold, Silver, Electroplate	10,000	6,480	29.7	1.7	- 7.2	30	6,000	5,656	- 5.9
Electroplating	1,000	709	31.7	2.0	+ 0.6	50	1,000	942	- 5.8
Jewellery	10,000	6,290	33.1	1.2	- 5.2	15	7,000	6,723	- 4.1
Musical Instruments	14,000	9,044	37.7	1.5	+ 0.8	10	2,000	3,564	+ 78.2
Total	85,000	57,038	27,532	1,194	-1,624		23,000	25,354	
Drugs and Fine Chemicals..	20,000	17,500	33.8	1.7	+19.6	25	10,000	13,600	+ 36.0
Seed Crushing	12,000	11,508	58.1	2.5	+51.5	40	1,000	2,147	+147.0
Fertilisers, Disinfectants	13,000	11,661	36.5	1.6	+24.6	30	1,000	1,768	+ 76.8
Paints, Varnishes	15,000	11,190	38.8	1.8	+11.6	35	2,000	3,490	+ 74.5
Starch, Polish	9,000	7,974	39.8	2.2	+26.2	35	7,000	9,590	+ 37.0
Matches, Fireworks	2,000	1,588	39.5	2.3	+16.6	35	3,000	3,300	+ 10.0
Total	71,000	61,421	28,669	1,362	17,728		24,000	33,895	
GRAND TOTAL	156,000	118,459	56,201	2,556	16,104		47,000	59,249	

TABLE A IV.

Employment in July, 1914, and July, 1916, in certain other industries engaged on Government work not less than 50 per cent. in July, 1916.

MALES.					FEMALES.				
	Employed July, 1914.	Employed July, 1916.	% Joined Forces.	% Returned to Civil Work.	% Displace- ment or Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.	% Increase.
Works of Construction	{	{	32.3	.6	+ 3.3	—	—	—	—
	55,000	39,380	17,765	330	1,815	70	—	—	—
Coal Mining ..	1,121,000	961,818	25.9	1.2	+ 10.5	50	7,000	9,954	+ 42.2
Iron Mines ..	27,000	23,220	22.6	1.8	+ 6.8	80	—	—	—
Lead Mines ..	4,000	2,808	14.2	3.1	— 18.7	50	—	—	—
Other Mines ..	6,000	5,772	29.1	1.1	+ 24.2	80	—	—	—
Limestone Quarries	21,000	15,183	27.8	1.1	— 1.0	70	—	—	—
	1,179,000	1,008,801	304,593	14,359	120,035	—	7,000	9,954	—
Jute ..	16,000	12,464	40.3	1.9	+ 16.3	55	35,000	38,710	+ 10.6
Hemp ..	1,000	810	34.5	3.1	+ 12.4	70	3,000	3,420	+ 14.0
Rope, Twine ..	10,000	8,270	24.5	0.9	+ 6.3	60	15,000	15,195	+ 1.3
Canvas, Sacks, etc. ..	12,000	10,344	36.1	1.8	+ 20.5	55	16,000	21,824	+ 36.4
	39,000	31,888	13,575	641	5,822	—	69,000	79,149	—
Sawmilling ..	80,000	61,360	32.6	1.4	+ 7.9	60	3,000	7,632	+ 154.4
Wood Boxes ..	30,000	24,780	37.2	1.3	+ 18.5	50	2,500	4,082	+ 63.3
Coopering ..	6,000	4,452	32.8	1.6	+ 5.4	50	500	1,395	+ 179.0
	116,000	90,592	39,208	1,606	12,194	—	6,000	13,109	—

TABLE A IV.—continued.

MALES						FEMALES			
	Employed July, 1914.	Employed July, 1916.	% Joined Forces.	% Returned to Civil Work.	% Displace- ment or Replace- ment.	% Gov. Work.	Employed July, 1914.	Employed July, 1916.	% Increase.
Brick, Fireclay	80,000	37,600	25.0	0.7	— 28.7	70	5,000	5,705	+ 14.1
Glass (other than bottles) ..	20,000	13,960	33.8	1.8	+ 1.8	50	2,500	3,747	+ 49.9
Tanners, etc. ..	35,000	33,530	37.8	2.3	+ 31.3	60	3,500	11,788	+ 236.8
Saddlery, Harness ..	18,000	16,848	38.3	1.1	+ 30.8	55	5,000	7,365	+ 47.3
Leather Belting ..	2,000	1,564	27.5	2.2	+ 3.5	75	500	1,425	+ 185.0
Rubber	26,000	25,168	50.6	3.8	+ 43.6	70	15,000	24,870	+ 65.8
	181,000	128,670	60,590	2,955	5,305	—	31,500	54,900	—
Railways	600,000	515,400	18.0	0.9	+ 3.0	—	11,000	33,000	+ 200.0
Docks	100,000	104,500	16.0	0.6	+ 19.9	—	—	—	—
	700,000	619,900	124,000	6,000	37,900	—	11,000	33,000	—

TABLE B I.
MALES EMPLOYED IN METAL AND CHEMICAL INDUSTRIES AND
GOVERNMENT ESTABLISHMENTS.

	<i>July, 1914.</i>	<i>July, 1915.</i>	<i>Oct., 1915.</i>	<i>Dec., 1915.</i>	<i>Feb., 1916.</i>	<i>April, 1916.</i>	<i>July, 1916</i>
Iron and Steel ..	290,000	276,370	281,300	285,360	289,710	296,960	297,220
Wiredrawing, etc. ..	50,000	47,643	47,650	48,900	50,100	49,450	46,529
Engineering ..	588,000	549,000	603,188	620,928	643,096	655,032	640,155
Electrical Engineering ..	70,000	66,570	69,370	70,280	72,170	73,570	70,420
Shipbuilding ..	180,000	191,880	200,520	195,480	194,760	201,780	213,480
Cycle and Motor ..	88,000	79,904	81,488	81,136	81,576	81,664	86,152
Small Arms ..	6,000	14,124	21,258	22,482	22,896	22,050	19,890
Scientific Instruments ..	30,000	28,466	31,590	32,100	31,710	32,310	33,600
Other Metals ..	87,000	78,648	78,822	80,639	83,433	84,477	82,353
Total ..	1,389,000	1,333,305	1,415,186	1,437,305	1,469,451	1,497,293	1,489,799
Other Metal Trades ..	245,000	227,497	202,474	201,597	200,497	188,789	188,319
Total Metal Trades ..	1,634,000	1,560,802	1,617,660	1,638,902	1,669,948	1,686,082	1,678,118
Heavy Chemicals ..	23,000	22,609	24,058	24,518	25,001	25,415	26,289
Explosives ..	10,000	16,550	17,790	17,790	23,130	24,790	29,170
Dyes, etc. ..	16,000	15,968	16,528	17,744	18,736	19,200	21,552
Total ..	49,000	55,127	58,376	60,052	66,867	69,405	77,011
Other Chemicals ..	111,000	103,113	104,504	106,828	109,613	108,195	98,989
Total Chemical Trades ..	160,000	158,240	162,880	166,880	176,480	177,600	176,000
Admiralty Establs. ..	53,221	60,000*	60,000*	60,000*	65,624	64,890	64,214
M. Munitions Establs. ..	15,463	41,693	51,580	60,000	70,434	77,546	113,277
War Office Establs. ..	1,609	6,000*	7,000*	8,000*	8,218	8,206	8,327
	70,293	107,693*	118,580*	128,000*	144,276	150,642	185,818
Total Munitions 1,508,293	1,496,125	1,592,142	1,625,357	1,680,594	1,717,340	1,752,628	
GRAND TOTAL ..1,864,293	1,826,735	1,899,120	1,933,782	1,990,704	2,014,324	2,039,936	

* Estimated figure.

TABLE B II.
MALES ENLISTED IN METAL AND CHEMICAL INDUSTRIES AND
GOVERNMENT ESTABLISHMENTS.

	<i>July, 1915.</i>	<i>Oct., 1915.</i>	<i>Dec., 1915.</i>	<i>Feb., 1916.</i>	<i>April, 1916.</i>	<i>July, 1916</i>
Iron and Steel ..	54,810	59,160	61,770	63,800	70,180	68,715
Wiredrawing ..	9,500	10,100	10,750	11,150	12,000	12,480
Engineering ..	114,660	121,128	128,184	129,948	136,416	142,296
Electrical Engineering ..	16,730	17,640	18,630	19,810	21,560	22,330
Shipbuilding ..	28,800	30,240	32,580	35,460	37,620	38,880
Cycle and Motor ..	20,240	21,824	24,552	26,576	29,216	31,328
Small Arms ..	990	1,056	1,272	1,344	1,434	2,028
Scientific Instruments ..	5,160	5,610	5,940	6,270	6,540	7,590
Other Metals ..	18,444	19,749	20,880	21,402	22,533	23,562
	269,334	286,507	304,558	315,760	337,499	349,209
Other Metal Trades ..	47,395	51,731	54,922	58,426	64,465	70,729
Total Metal Trades ..	316,729	338,238	359,480	374,186	401,964	419,938
Heavy Chemicals ..	4,669	4,853	5,221	5,198	5,405	5,451
Explosives ..	1,650	1,740	2,120	2,130	2,340	2,680
Dyes, etc. ..	3,088	3,408	3,760	3,968	4,256	5,584
	9,407	10,001	11,101	11,296	12,001	13,715
Other Chemicals ..	28,673	32,239	35,459	37,184	40,159	42,765
Total Chemicals ..	38,080	42,240	46,560	48,480	52,160	56,480
Admiralty Establishments ..	—	—	—	7,526	7,886	8,224
M. of Munitions Establishments ..	—	—	—	1,534	1,808	6,232
War Office Establishments ..	—	—	—	698	1,068	1,354
	6,700*	7,700*	8,700*	9,758	10,762	15,810
Total Munitions ..	285,441	304,208	324,359	337,814	360,262	378,734
GRAND TOTAL ..	361,509	388,178	414,740	432,424	464,886	492,228

* Estimated figure.

TABLE B III.

WOMEN EMPLOYED IN METAL AND CHEMICAL INDUSTRIES AND
GOVERNMENT ESTABLISHMENTS.

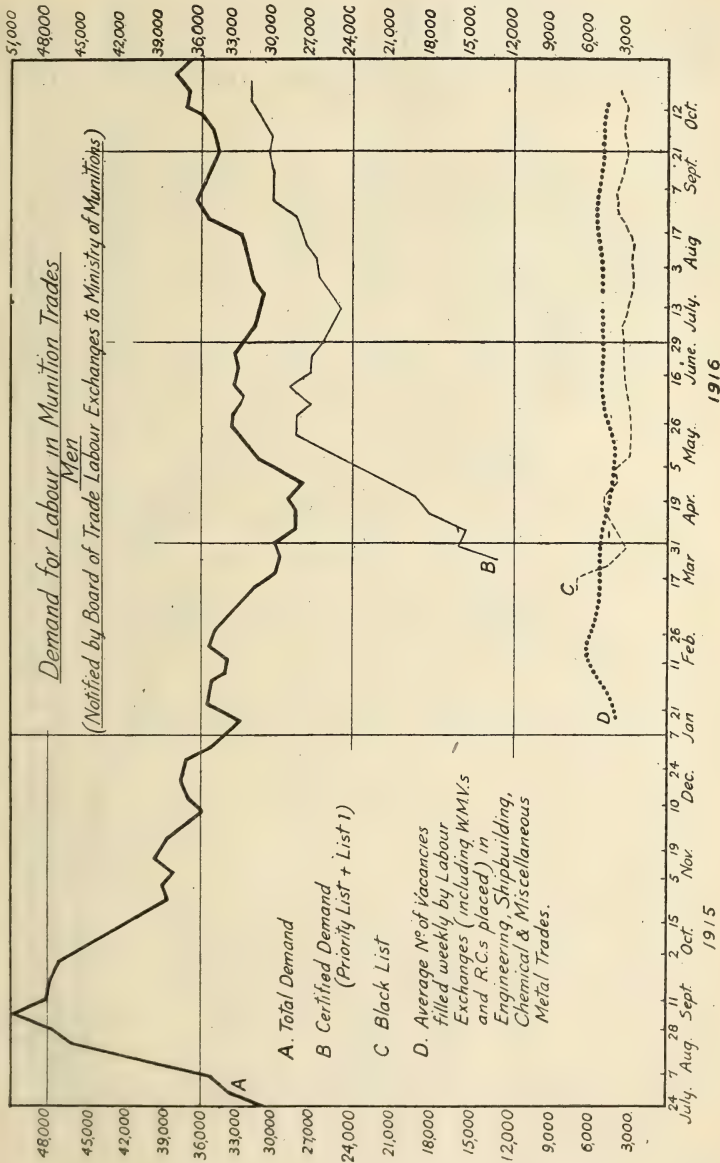
	<i>July, 1915.</i>	<i>July, 1915.</i>	<i>Oct., 1915.</i>	<i>Dec., 1915.</i>	<i>Feb., 1916.</i>	<i>April, 1916.</i>	<i>July, 1916</i>
Iron and Steel ..	5,000	5,995	7,045	8,400	8,920	10,350	14,865
Wiredrawing.. ..	18,000	20,772	21,852	23,796	24,372	24,750	24,388
Engineering	15,000	30,780	37,025	50,715	64,620	97,920	124,854
Electrical Engineer.	13,000	16,159	18,000	20,000	21,100	22,334	23,634
Shipbuilding.. ..	1,000	2,563	2,640	2,200	1,700	2,429	4,032
Cycle and Motor ..	6,000	6,780	7,824	9,564	11,418	11,994	18,090
Small Arms	1,000	1,621	1,899	4,182	7,611	6,760	8,741
Scientific Instruments	6,000	7,314	8,004	8,298	7,986	8,874	8,928
Other Metals	15,000	14,700	15,750	16,410	17,190	18,885	20,628
Total	80,000	106,684	120,039	143,565	164,917	204,296	248,160
Other Metal Trades	72,000	75,564	83,185	84,131	84,059	86,480	84,264
Total Metal Trades	152,000	182,248	203,224	227,696	248,976	290,776	332,424
Heavy Chemicals ..	1,000	1,388	1,522	1,600	1,956	3,568	4,526
Explosives	5,000	7,620	9,200	9,970	13,095	14,595	19,715
Dyes, etc.	1,000	1,000	1,000	1,000	1,618	1,979	2,344
Other Chemicals ..	7,000	10,008	11,722	12,570	16,669	20,142	26,585
Total Chemicals ..	33,000	37,872	40,438	46,830	51,211	53,418	50,415
Total Chemicals ..	40,000	47,880	52,160	59,400	67,880	73,560	77,000
Admiralty Estabs.	434	—	871	1,023	1,162	1,639	3,083
M. Munitions Estabs.	11	—	311	1,029	3,106	15,328	72,418
War Office Estabs. ..	144	—	857	940	1,118	1,494	1,978
	589	1,500*	2,039	2,992	5,386	18,454	77,479
Total Munitions..	87,589	118,192	133,780	159,127	186,972	242,892	351,124
GRAND TOTAL ..	192,589	231,628	257,423	290,088	322,242	382,790	486,903

* Estimated figure.

APPENDIX II.

(CHAPTER I.)

Demand for Labour in Munition Trades from Firms on Government Work. July, 1915—October, 1916.

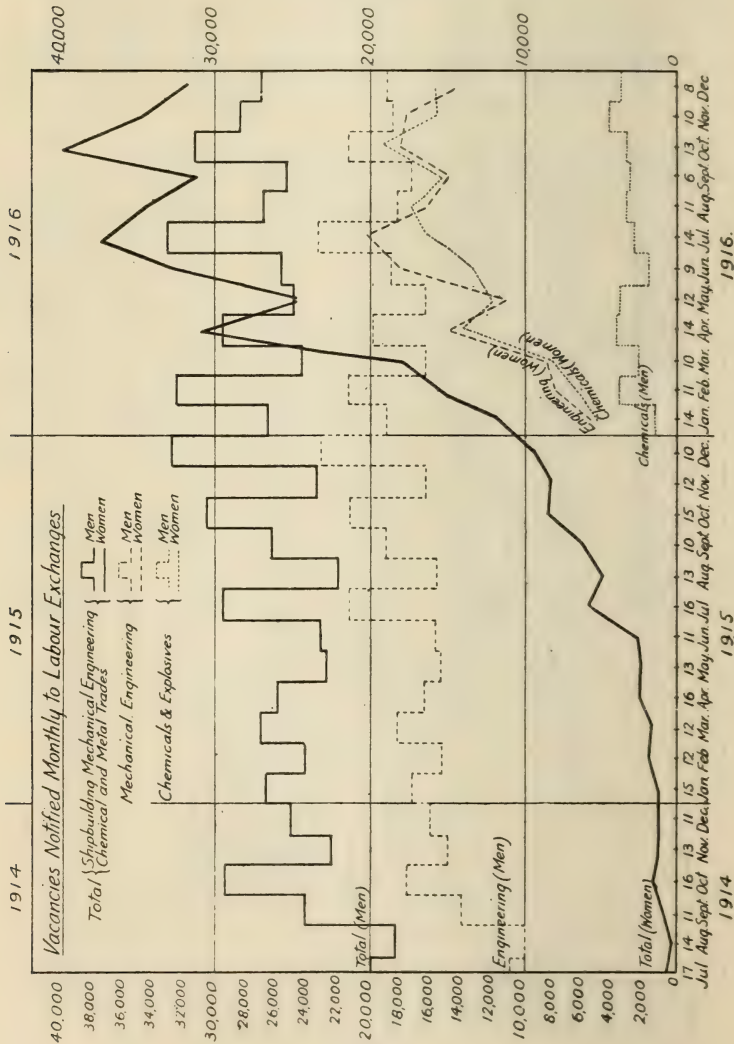


APPENDIX III.

(CHAPTER I.)

Demand for Labour in Munitions Trades.

VACANCIES NOTIFIED TO LABOUR EXCHANGES FOR MEN AND FOR WOMEN IN SHIPBUILDING, MECHANICAL ENGINEERING, CHEMICAL AND EXPLOSIVE MANUFACTURE, JULY, 1915—AUGUST, 1916.



APPENDIX IV.

(CHAPTER I.)

**Demand for certain classes of Labour in Munitions Trades
from Firms on Government Work, 1916.**

1916.	Fitters.	Turners.	Metal Machinists.	Tool- makers and Tool- setters.	Ship- building.	Metal Manufac- ture.	Chemicals and Explosives.	Unskilled Men.
14 Jan. ...	8970	4745	3445	2201	5898	2833	1117	2931
11 Feb. ...	7330	4594	2751	2454	5432	3031	1305	3093
17 March	6667	3504	2435	2130	5752	2583	1520	3619
13 April...	6120	3140	2038	1922	5006	2478	2573	4011
12 May ...	5385	2951	2489	2288	5776	2919	4960	4634
16 June...	5694	3031	2702	2067	6004	3740	3700	4924
14 July ...	5247	2689	2299	1846	6581	3492	2306	5209
17 August	4848	2565	1952	1655	6215	4702	3350	5089
14 Sept....	5253	2312	1784	1381	5656	4614	2766	5523
12 Oct. ...	5359	2361	1675	1661	5528	5408	1874	—
16 Nov....	5706	2558	1260	1405	4814	5204	3214	—
14 Dec. ...	6162	2788	1892	1525	4723	5469	2862	—

APPENDIX V.

(CHAPTER II.)

Statistics of War Munition Volunteers.

	Enrolled.	On Live Register.	Placed	Invited to Enrol.	Re-en- rolled.	Ap- proved for trans- fer after adjudi- cation.	No. of Firms adjudi- cated.
Total before 26 Sept., 1915	103,974	—	4,529	—	—	—	—
Weekly Average for—							
Oct., 1915 ..	223	7,181	152	—	—	—	—
Nov., 1915..	470	—	77	—	—	—	—
Dec., 1915 ..	927	13,060	89	371	220	—	—
Jan., 1916 ..	531	8,557	237	557	169	} 2,715*	2,056*
Feb., 1916 ..	—	1,434	197	327	472		
March, 1916	—	1,163	214	173	177		
April, 1916..	432	3,427	230	92	136	121	138
May, 1916 ..	589	3,093	337	63	74	57	70
June, 1916..	351	2,162	313	176	102	33	95
July, 1916 ..	289	1,925	354	—	146	53	—

* Total for January, February and March, 1916—weekly figures not available.

APPENDIX VI.

(CHAPTER II., p. 33.)

Employment of W.M.V.s in Certain Establishments.*

W. H. Allen, Son & Co., Bedford	130
Sir W. G. Armstrong, Whitworth & Co.—	
Naval Yard, High Walker	396
Elswick and other works	155
Austin Motor Co., Northfield	193
W. Beardmore & Co.—	
Dalmuir	250
Parkhead	184
Peter Brotherhood, Ltd., Peterborough	192
Caton Engineering Co., Lancaster	42
Clayton & Shuttleworth, Lincoln	84
Coventry Ordnance Works	222
W. Doxford & Sons, Sunderland	102
Fairfield Shipbuilding and Engineering Co.	45
Harland & Wolff	53
National Projectile Factory—	
Dudley	224
Lancaster	115
National Shell Factories, Leeds	117
Palmer's Shipbuilding and Iron Co.	186
Parsons Marine Steam Turbine Co., Wallsend	96
Perkins Engineers, Ltd., Peterborough	77
Ruston, Proctor & Co., Lincoln	140
Scott's Shipbuilding and Engineering Co., Greenock	35
Swan, Hunter & Wigham Richardson	46
Thornycroft & Co., Southampton	107
Vickers, Ltd.—	
Barrow	120
Birmingham	114
Crayford	336
Erith	258
Ipswich	38
Sheffield	63
Weybridge	30
J. S. White & Co., Cowes	72
Wolseley Motors, Ltd.	85
Royal Arsenal, Woolwich	92

* The numbers given above include only those W.M.V.s in respect of whom subsistence or travelling allowances were paid for July, 1916. Others also were employed in respect of whom no such payments were necessary.

APPENDIX VII.

(CHAPTER II.)

**Sums Paid by Ministry of Munitions to Firms in Respect of
W.M.V.s Employed by Them.**

			<i>Difference in rate of wage.</i>	<i>Subsistence allowance.</i>	<i>Fares.</i>	<i>Travelling time.</i>	<i>Total.</i>
			£	£	£	£	£
1915—							
August	..	..	—	530	13	28	571
September	..	..	304	4,596	159	305	5,364
October	..	..	807	8,273	249	480	9,809
November	..	..	816	11,086	448	953	13,303
December	..	..	1,226	12,052	596	1,641	15,515
1916—							
January	..	..	1,282	16,525	762	1,738	20,307
February	..	..	2,157	16,807	588	1,198	20,750
March	..	..	948	12,963	504	1,091	15,506
April	..	..	300	5,709	275	597	8,424*
May ..	..	..	1,816	17,703	718	1,469	22,306*
June ..	..	..	229	4,356	230	405	6,337*
July ..	..	..	2,453	25,035	891	2,054	32,797*
Total	..	..	12,338	135,635	5,433	11,959	170,989
Per cent.	..	..	7.3	82.2	3.3	7.2	—

* Information concerning the allocation of £5,624 paid between April and July, 1916, in respect of subsistence allowance, fares, etc., is not available.

APPENDIX VIII.

(CHAPTER III., p. 35.)

**Statistics of Demand in Munitions Industries and of Soldiers
Available for Release, November, 1915.**

1. Trade distribution of 36,930 soldiers available for release, Major Scott's Memorandum, 19 November.

2. Statistics of Demand and R.C. Live Register, 13 November, 1915.

3. Statistics of Demand and R.C. Live Register, 6 December, 1915.

		1 19 Nov.		2 13 Nov.		3 6 Dec.	
		R.Cs.	Per cent. of total.	Demand.	R.C. Live Register.	Demand.	R.C. Live Register.
001	Joiners (Ship) ..	152	·4	25	61	37	62
003	Retort and Furnace Builders	—	—	29	31	—	32
014	Ships' Plumbers ..	58	·16	61	29	237	5
014	Lead Burners ..	76	·2	93	—	105	—
017	Sawyers	22	·3	42	4	39	9
018	Wood Machinists ..	73		135	26	147	25
031	Platers	3,684	9·9	458	105	309	169
	Riveters			1,683	352	1,507	307
	Holders-up			59	368	115	406
	Angle Ironsmiths ..			65	5	54	1
	Caulkers			378	16	621	10
	Drillers			569	195	605	193
	Others			255	181	599	161
032	Shipwrights			601	15	582	70
	Riggers			23	222	52	133
	Others			124	41	145	25
033	Rivet Heaters	—	—	64	195	26	222
	Platers' Helpers ..	—	—	89	72	82	112
	Boiler and Pipe Coverers	—	—	21	5	61	2
	Others	—	—	447	77	462	86
037	Pattern Makers ..	317	·8	58	62	65	123
038	Moulders	617	1·6	721	295	875	209
	Coremakers			152	110	109	138
	Others			54	48	61	49
039	Dressers or Grinders ..	—	—	81	65	212	54
	Others	—	—	350	71	356	33
040	Brassmoulders	682	1·8	184	240	138	293
	Others			178	41	155	44
041	Brass Dressers	—	—	125	18	65	18
042	Blacksmiths	981	2·6	232	186	237	143
	Welders			145	39	41	58
	Others			348	92	547	65
043	Smiths' Strikers ..	2,529	6·8	332	967	293	1,099

		1 19 Nov.		2 13 Nov.	3 6 Dec.	
		R.Cs.	Per cent. of total.	Demand.	R.C. Live Register.	R.C. Live Register.
044	Iron Erectors ..	—	—	221	167	142
	Pipe Fitters ..			127	3	6
	Fitters ..			7,949	257	232
	Turners ..	5,751	15.6	6,862	95	39
	Millwrights ..			308	4	6
	Others ..			1,883	200	135
	Toolmakers ..	205	.5	787	1	1
	Tool-turners ..	38	.1	689	—	1
	Tool-setters ..	59	.16	209	—	3
045	Brass Finishers ..	631	1.7	489	136	162
046	Coppersmiths ..	111	.3	384	—	2
047	Planers, Shapers,					
	Slotters ..			1,023	40	20
	Millers ..			1,291	27	12
	Drillers ..	5,496	14.8	527	669	848
	Grinders ..			444	106	155
	Turret and Capstan Operators ..			877	77	70
	Others ..			1,848	477	570
049	Sheet Metal Workers	800	2.2	554	237	195
050	Gunsmiths ..	269	.7	139	111	118
051	Wiremen, etc. ..	1,117	3.0	718	269	199
052	Enginemmen ..	87	.2	187	16	14
053	Riggers ..	—	—	31	10	11
067	Cycle Makers ..	—	—	59	19	23
068	Motor Chassis and Engine Makers ..	—	—	31	101	137
069	Motor Body Makers	600	1.6	150	190	262
070	Wheelwrights ..	314	.8	53	101	137
091	Iron Manufacture ..			93	385	461
092	Puddling Furnaces & Rolling Mills ..			512	714	449
093	Iron and Steel Tube Manufacture ..			626	24	82
094	Steel Smelting ..			213	253	295
095	Copper Manufacture			92	118	139
096	Lead Manufacture ..	3,812	10.3	14	53	69
097	Spelter Manufacture			—	23	37
098	Brass and Bronze Manufacture ..			302	143	23
099	Galvanised Sheet Manufacture ..			42	191	350
100	Tinplate Manufacture			20	154	222
101	Other Metal Manu- facture ..	—	—	24	46	64
102	Labs. (Metal Mfr.)..	—	—	486	5	7
104	Spring Makers ..	—	—	12	1	5
105	Electric Cable Mfr.	—	—	23	11	17
107	Electric Apparatus Manufacture ..	98	.3	238	112	19
108	Tool Makers (not machine tools) ..	—	—	60	13	17
129	Wire Drawers, etc. ..	411	1.1	171	116	175
230	Ironstone Miners ..	—	—	50	887	917
235		—	—	—	288	—
247	Instrument Makers..	169*	.4	526	34	25
260	Workers in Glass ..	312	.8	100	132	230
—2		—	—	—	—	—

		1 19 Nov.		2 13 Nov.		3 6 Dec.	
		R.Cs.	Per cent. of total.	Demand.	R.C. Live Register.	Demand.	R.C. Live Register.
269	Chemical and Exp.						
270	Manufacture			169	203	197	288
273	Manufg. Chemists ..	1,003	2·7	19	29	13	35
274	Alkali Manufacture			235	364	212	314
282	Chemical Labourers	—	—	200	3	244	3
287	Leather Manufacture	—	—	16	27	13	34
290	Harness Makers ..	53	·12	73	24	120	26
342	Sailcloth Manufacture	252	·7	44	102	30	136
466	Draughtsmen ..	61	·17	189	16	150	28
	Others ..	5,371	14·6	158	625	240	702
	Apprentices..	—	—	—	2,960	—	3,091
		36,930	—	40,728	15,315	39,151	16,117
Others retained for submission ..		—	—	—	645	—	—
Returned as useless		—	—	—	8,251	—	10,950*
Accepted ..		—	—	—	3,500*	—	8,600*
Outstanding submis- sions ..		—	—	—	3,865*	—	6,400*
					31,576		42,067*

* Estimate.

APPENDIX IX.

(CHAPTER III., p. 44.)

**The Royal Warrant Concerning the Status and Allowances
of Soldiers Released from the Colours.***Employment of Soldiers in Civil Occupations.*
George R.I.

Whereas We deem it expedient to define the conditions under which soldiers of Our Regular Army, Special Reserve and Territorial Force shall serve when temporarily employed, under the authority of Our Army Council, in the manufacture of Munitions of War and in certain other civil occupations connected with the conduct of the present war ;

Our Will and Pleasure is that a soldier so employed shall remain in possession of all his rights and privileges as a soldier in respect of himself, his family and dependants, except that he shall not receive any Army pay and allowances in respect of himself unless his earnings from his civil employment are less than such Army pay and allowances, in which case the balance shall be made good to him in the form of a special allowance paid from Army funds¹ ;

This Warrant shall have effect as from the 1st January, 1915.

Given at Our Court at St. James's, this 11th day of May, 1915, in the 6th year of Our Reign.

By His Majesty's Command.

KITCHENER.

¹ On 8 January, 1916, the Warrant was amended by the deletion of the words "paid from Army funds."

APPENDIX X.

(CHAPTER III., p. 57.)

**Trade Distribution of Released Soldiers at Work on
17 December, 1917.**

<i>Occupation No.</i>	<i>Trade.</i>	<i>Percentage.</i>	<i>Occupation No.</i>	<i>Trade.</i>	<i>Percentage.</i>
001	Carpenters (Ship) ..	·34	097	Spelter Manufacture ..	·23
003	Bricklayers (Furnace) ..	·09	098	Brass and Bronze Manufacture ..	·43
013	Painters (Ship) ..	·17	199	Galvanised Sheet Manufacture ..	·21
014	Plumbers (Ship) ..	1·09	100	Tinplate Manufacture ..	·13
014	Leadburners ..		101	Other Metal Manufacture ..	·67
016	Whitesmiths ..	·03	102	Labourers, Metal Manufacture ..	·26
017	Sawyers ..	·10	104	Spring Makers ..	·09
018	Wood Machinists ..	·16	107	Electrical Apparatus Manufacture ..	·16
031	Platers, Riveters ..	12·88	108	Toolmakers ..	·14
032	Shipwrights ..	2·10	109	File Makers ..	·19
033	Shipyard Labourers ..	2·57	124-5	Nail, Nut, Bolt, Rivet, Screw Manufacture ..	·12
037	Patternmakers ..	·33	126	Anchor Chain Maker ..	·09
038	Moulders (Iron and Steel) ..	2·35	129	Wiredrawer ..	·90
039	Fettlers' Dressers ..	·79	130-9	Metal Workers ..	·34
040	Brassfounders ..	1·02	172	Works' Clerks ..	·15
041	Brassfoundry Labrs. ..	·20	179-83	Railwaymen ..	·08
042	Smiths ..	1·58	225-7	Shale Miners ..	·07
043	Smiths' Strikers ..	2·28	230	Iron Ore Miners ..	1·16
044	Fitters, Turners ..	30·57	233-40	Other Miners ..	·55
045	Brassfinishers ..	1·15	247-9	Scientific Instrument Makers ..	·52
046	Coppersmiths ..	·56	257	Silica Brick Makers ..	·28
047	Metal Machinists ..	9·39	269	Explosive Manufacture ..	·71
049	Sheet Metal Workers ..	1·20	270	S.A.A. Manufacture ..	·58
050	Gunsmiths ..	·10	273	Fine Chemicals Manufacture ..	·37
051	Electricians, Wiremen ..	2·07	274	Alkali Manufacture ..	1·48
052	Enginemen ..	·80	275-82	Other Chemical Workers ..	·24
053	Engineers' Labrs. ..	1·17	466	Draughtsmen ..	·65
068-9	Motor-car Chassis and Body Makers ..	·43		Miscellaneous ..	2·61
070	Wheelwrights ..	·04			
091	Blastfurnacemen ..	2·73			
092	Puddlers and Workers in Steel Rolling Mills ..	4·44			
093	Iron and Steel Tubes ..	1·22			
094	Steel Smelting ..	1·51			
095	Copper Manufacture ..	·66			
096	Lead Manufacture ..	·21			

APPENDIX XI.

(CHAPTER III.)

Statistics of Releases from the Colours.

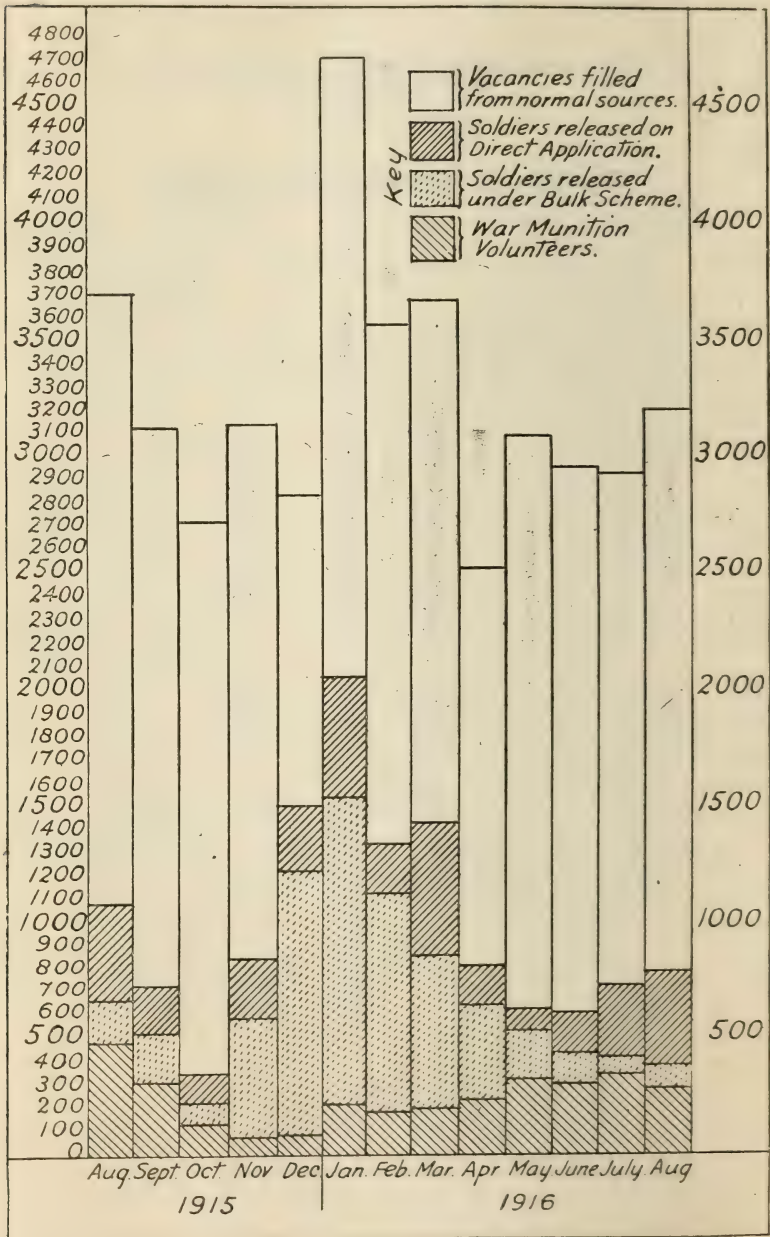
	Reported Started Work.			Average Daily Sub- missions.	Returned as useless by Allocation Section.
	Total.	Bulk.	D.A.		
Total before Aug., 1915 ..	5,025	4,184	841	—	—
Weekly average for—					
Aug., 1915	576	196	379	—	—
Sept., 1915	393	168	225	—	—
Oct., 1915	207	94	113	—	—
Nov., 1915	782	524	258	1,007 ¹	10,596
Dec., 1915	1,430	1,141	289	871	10,880
Jan., 1916	1,798	1,329	469	595	12,179
Feb., 1916	1,152	934	218	501	13,818
March, 1916	1,226	674	552	327	16,484
April, 1916	613	420	193	156	—
May, 1916	300	207	93	Trans- ferred.	Returned to Units.
June, 1916	310	127	183		
July, 1916	392	73	319	1,486 ²	2,631 ²
Aug., 1916	485	93	392	45	15
Sept., 1916	469	91	378	121	20
Oct., 1916	511	114	397	98	14
Nov., 1916	325	97	227	116	30
TOTAL	51,781	30,893	20,888	2,449	2,848

¹ Figures for two weeks ending 19 and 26 November only available.² Numbers recorded up to 28 July, 1916.

APPENDIX XII.
(CHAPTERS II. AND III.)

The Supply of Labour for the Munitions Trades.

AVERAGE NUMBER OF VACANCIES FILLED EACH WEEK BY THE LABOUR EXCHANGES AND THE MINISTRY OF MUNITIONS FOR SKILLED AND SEMI-SKILLED MEN IN SHIPBUILDING, ENGINEERING, METAL AND CHEMICAL TRADES. AUGUST, 1915—AUGUST, 1916.



APPENDIX XIII.

(CHAPTER IV.)

**Statistics Concerning the Number of Students Trained in
Technical Schools and placed in Munitions Factories.
January to September, 1916.**

Period (4 weeks unless otherwise stated).	Weekly average Number of Schools reporting.	Weekly average number of Students reported as		
		In Training	Qualified.	Placed.
January, 1916	42	—	305	236
February	51	2,295	367	309
March (5 weeks)	51	2,493	459	386
April	45	1,882	398	288
May	47	1,980	348	300
June (5 weeks)	46	2,069	361	293
July	45	1,988	323	285
August	37	1,518	287	270
September (5 weeks)	34	1,471	187	192

Up to 31 December, 1915, 10,144 students were recorded as qualified, of whom it was estimated that not less than 7,850 were placed in munitions factories.

APPENDIX XIV.

(CHAPTER IV.)

List of Universities, Colleges and Technical Schools which took part in the Training of Munition Workers under the Ministry's Scheme in 1916.

(The numbers in brackets indicate the number of students placed between 1 January and 31 August, 1916.)

- | | |
|--|---|
| Aberdeen, Robert Gordon's College (400-500). | London— <i>continued</i> . |
| Aston Technical School (200-300). | Poplar School of Engineering (100-200). |
| Birmingham Technical School (300-400). | Regent Street Polytechnic. |
| Blackburn Technical School. | Shoreditch Technical Institute (1,617). |
| Bradford Technical College (100-200). | South-Western Polytechnic. |
| Brighton Technical College. | Woolwich Polytechnic. |
| Bristol University, Merchant Venturers' Technical College (100-200). | Loughborough Technical Institute (600-700). |
| Burnley Technical School. | Newcastle-on-Tyne—Rutherford College. |
| Cardiff Technical School (100-200). | Newport (Mon.) Technical Institute (500-600). |
| Colchester Technical School (100-200). | Nottingham University College (200-300). |
| Croydon Polytechnic. | Oldham Technical School. |
| Darlington Technical College. | Peterborough Technical School. |
| Derby Technical College. | Plymouth Technical School (200-300). |
| East Ham Technical College (100-200). | Portsmouth Technical College (100-200). |
| Edinburgh— | Reading University. |
| Heriot-Watt College (200-300). | Salford Royal Technical Institute. |
| Tynecastle School. | St. Helens Technical School. |
| Erith Technical School (100-200). | Sheffield University (100-200). |
| Fife (Cowdenbeath) Mining School. | Smethwick Technical School. |
| Gillingham Technical Institute (100-200). | Sutton Coldfield Technical School. |
| Glasgow—Royal Technical College (500-600). | Swansea Technical College. |
| Grimsby Technical School. | Tunbridge Wells Technical Institute. |
| Halifax Technical School. | Walsall Municipal Institute. |
| Handsworth Technical School (100-200). | Wednesbury Technical Institute. |
| Lancaster Technical School (100-200). | Wellingborough Technical Institute. |
| Leeds University. | West Bromwich Municipal Science School. |
| Liverpool University (100-200). | Wigan Technical College. |
| London— | Willenhall Technical School. |
| Battersea Polytechnic. | Wimbledon Technical Institute (100-200). |
| Brixton School of Building (1,274). | York Technical School (100-200). |
| East London College (100-200). | |
| Goldsmiths' College, New Cross. | |
| King's College (100-200). | |
| Northern Polytechnic. | |

APPENDIX XV.

(CHAPTER V., p. 82.)

List of Processes upon which Women were Employed, 1 June, 1916.*Adaptors (Fuse).—*

- All machine operations.
- Assembling and packing.

*Aeroplanes, Sea-planes, etc.—**Wing Covers.—*

- Machining, stitching.
- Doping, sizing, varnishing.
- Putting covers on main wings.
- Stretching and fixing fabric to wings.
- Solution work (fastening envelope parts by solution).
- Assisting in the Rigging Department on wire splicing.

Light Wood and Metal Work.—

- Building and making ribs and small parts in wood.
- Finishing ribs, spars, etc.
- French polishing.
- Wood screwing and gluing for framework.
- Acetylene welding on metal parts and fittings for stays and struts.
- Inspection of small parts.
- Marking pressure and other gauges in connection with aeroplane fittings on cards and metal.
- Cleaning up and bending the metal fittings before enamelling, and enamelling.
- Filling in and marking indicator plates with wax.
- Simple fitting and assembling of bomb dropper parts.

Aeroplane Engines.—

- Operating light automatic machines on parts of aeroplane engines and turning piston rings.
- Plain milling, drilling, filing and simple fitting.
- Milling, fluting, turning taps.

Bearings. (Manufacture of Ball and Roller Bearings for War Purposes).—

- Fettling.
- Drilling small parts on multiple spindle drill.
- Grinding.
- Sorting steel balls and rollers.
- Turning and grinding ball races.
- Assembling cages for ball bearings.
- Viewing.

Boiler and Engine Fittings.—

- Dial writing.
- Pressure gauge making.
- Making asbestos washers.
- Core making in foundry.
- Glass grinding.

Bolts. (For Aeroplanes and Submarines).—

- Operating turret and capstan lathes.
- Bolt making, etc., on automatic machines.

Bombs.—

Core making (howitzer 2-in. and 3-in.).
 Boring, drilling, turning of 2-in. and 3-in. howitzer bombs.
 Welding 9-in. trench bombs.
 Cleaning, varnishing, painting, testing and inspecting.

Brass Casting.—

Core making for small castings.
 Fettling, cleaning, fitting, putting together and machining small parts.
 Tending drilling machines and lathes.

General Stamped Work.—

Press hands, stamping, lacquering.

Breech Mechanism Parts.—

Actual operations on breech rings and other mechanism in connection with breech of 60-pdr. guns.
 All fitting on breeches of 3-in. submarine gun.
 Drilling holes $\frac{2}{10}$ inches diameter in axial vents for 60-pdr. guns.

Bullets.—

Moulding shrapnel bullets and casting.
 Washing.
 Pressing.
 Gauging and viewing.

Carbons.—

(For batteries for field telephones and trench electric torches.)

Cartridges.—

All processes on .303 cartridges.
 Making and packing blasting cartridges.
 Trimming, coiling and packing steel strips for cartridges.
 Making grummets in connection with cartridge manufacture.
 Filling charges with cartridges.
 Bandolier testing and filling.

Cartridge Cases.—

Turning, buffing, gauging, rolling out dents, sizing, tapping, softening and re-forming (hydraulic process).

Chains.—

Turning parts of conveyor chain links.
 Recessing ends of Lincoln pins.

Cranes.—

Operating electric overhead travelling cranes in iron foundry and general engineering shop.

Crucibles.—

Work on the clay in making crucibles for the use of brass and iron foundries.

Electric Motors and Apparatus.—

Stamping for armature cores.
 Core filling.
 Filing and trimming cores on kilowatt 2,000 generator.
 Filing up and assembling brass brush rocker and gear parts.
 Armature winding (up to 100 h.p.).
 Coil, rotor, and stator, winding, mica cutting.
 Forming and winding on alternate and direct current motors.
 Manufacture of small transformers.
 Electrical wiring and fitting up of lighting and telephone instalment.
 Hot rings for heating and cooking.

Electric Motors and Apparatus—continued.

Switch gear polishing.
Plating and dipping.
Work in meter shops, testing rooms, and in Instrument Departments.
Making voltmeters and ammeters.
Painting motor parts.
Assembling small motors.
Assembling electric switches, and small electric fittings for inspection.
Cable covering.
Operating cable insulating machines.

Files.—

Machine cutting.
Branding, straightening, dry grinding, viewing, packing.
File cutting by hand.

Filling.—

(Shells, smoke and gas bombs, grenades, star shells.)

Fret Saws.—

Hardening and tempering.

Fuses.—

Every machine operation in the manufacture of 65A, 100, 121, 44 and 18 fuses, and sizing, tapping, lacquering, gauging, electro-plating and polishing.

Gaines.—

All operations on gaine making.
Assembling and packing.

Gauges.—

(Submarine, boiler and marine, etc.)
Shaping.
Bending.
Scoring, etc., brass parts for circular frame of gauges.
Fitting small screws.
Making small parts.
Marking figures on dials as they test the gauges, and the pressure registered after pencilling the figures.
Engraving figures permanently on the dial face.
Glass grinding for gauges.
Work on fuse and shell gauges.

Gun Sights.—

(Chiefly for howitzers.)
Work in Sight Department on 4-in. P IX, 6-in. and 8-in. howitzer sights, and 3 and 6 pounder naval sights.
Working slotting machine on steel links for 3 pounder sights.
Slotting sight elevating bars.
Tool work on a dividing head.
Milling the rear fittings for 6-in. and 8-in. howitzer sights.
Working shapers for 6-in. and 8-in. howitzer parts, 4-in. and P IX sights.
Working 4-in. centre lathe on 4-in. and P IX sights.
Working drills.
Fitting up parts for 6-in. and 8-in. howitzers.
Scraping 6-in. gear castings.
Inspecting parts of sights and using micrometer.

Hand Grenades.—

Core making, attending fires for cores making, casting, drilling, turning, tapping, milling, fitting up, finishing, assembling, loosening screw top, examining, cleaning, lacquering, filling, packing.

Horse Shoes.—

Drilling.

Lamps.—

(Mainly for ambulance purposes.)

Soldering acetylene lamps.

Rivetting and painting lamps.

Leather and Canvas Goods.—

Manufacturing leather equipment, belts, pouches, munition cases, kit, forage bags, harness, etc., for cavalry and gun teams.

Hand stitching canvas haversacks and 4·5 ammunition carriers.

Machine Guns.—

Profiling.

Cross milling.

Machining parts.

Bench work on the less intricate fitting operations.

*Manufacture of Machine Tools.—**Machine Shop.—*

Milling square turrets for lathes.

Operating slot milling machines.

Operating vertical milling machines making spiral scrolls.

Milling lathe brasses.

Milling key-seating in shafts.

Turning and boring wheel blanks.

Turning details for machine tools on turret lathes.

Operating 15-in. centre chucking lathe turning pulleys.

Turning cast-iron sleeves and shafts.

Boring hole in lathe spindles.

Boring chucking lathe.

Surface grinding.

Internal grinding of friction rings.

Operating Churchill cylindrical grinder.

Grinding to size and using micrometer to $\frac{1}{4}$ -thousandth inch on hardened ground pins for registering lathe turrets.

Grinding faces of lock nuts.

Grinding shafts after rough turning.

Grinding operation on valve-seating cutter.

Drilling on cast-iron brackets for machine tools.

Operating 3-spindle drill.

Slot drilling.

Drilling small parts with multiple spindle drill.

Broaching to limit of .0005.

Gear shaping.

Cutting key-ways on slotting machines, making cutter bars for turret lathes.

Operating 12-in. stroke slotting machines making cutter bars for turret lathes.

Operating 24-in. shaping machine on machine tool parts.

Operating shaping machine working with a dividing head.

Light planer on general work.

Operating special reamer machine.

Cutting bevel, spur and helical gears.

Fitting.—

(Bench work.)

Scraping slide rests.

Fitting together small slide rests.

Filing up wheel blanks after machining and preparatory to hardening.

Marking off.

Filling and assembling counter shafts.

Marine Engineering.—

1. (a) Constructional Work Demanding the use of Machines.
 - Operating small drilling, capstan and turret machines ; shaping, slot drilling, rung turning, bolt centring, studding, tapping, slotting, screwing, tight milling, small planing, and engraving machines.
 - Operating small centre and small brass-finishers' chuck lathes.
 - Boring holes in casting and forgings.
 - Turning studs.
 - Spindle and bar brass turning.
 - Grinding nuts and liners.
 - Tapping and facing nuts.
 - Turning rod ends.
 - Turning small cutter work.
 - Band-saw sharpening.
 - Working band-saw for cutting small, round, square L.T.H. and other section rods or bars.
 - Facing pipe flanges.
 - Making small parts for refrigerator installations.
 - Tapping holes.
 - Facing bolt holes.
 - Light turning.
 - Polishing brass bands.
 - Operating sensitive drill.
- (b) Other Work not Demanding the Use of Machines.—
 - Marking out castings, etc., on surface table.
 - Small tool storekeeper.
 - Making joints.
 - Fitting clips.
 - Light simple fitting.
 - Hand facing.
 - Small bench work.
 - Sweeping and cleaning.
 - Filing up brass wedges for rotors.
 - Filing up aluminium packing pieces for rotors.
2. Work in the Boiler, Condenser, Sheet Metal Shop and Smithy.—
 - Operating machines for :—
 - Turning boiler end plates and cutting out flue holes in boiler ends.
 - Boiler shell drilling.
 - Boiler flue drilling.
 - Plate edge planing.
 - Medium screwing and drilling.
 - Rivetting boiler flues with portable hydraulic rivetter.
 - Drilling rivet holes in boiler end plate.
 - Turning boiler flue flanges.
 - Making ladders and gratings.
 - Testing boiler tubes.
 - Tube bending.
 - Oxy-acetylene cutting and small welding.
 - Cleaning, sighting, testing, cutting, packing small condenser tubes.
 - Ferruling condensers and oil coolers.
 - Tapping tube plates.
 - Bench work.
 - Driving power hammer.
 - Spot welding various projections on core plates.
3. Turbine Work.—
 - Blading rotors and stators.
 - Drilling, milling, boring, cutting, and preparing segment for blades.
 - Threading blades and caulking up.
 - Wiring up before brazing, and brazing.
 - Milling and forming roots and tips of steam turbine blades.

Marine Engineering—continued.

4. Brass, Copper, and Small Foundry Work.—
Coremaking.
Moulding.
Tub work.
Dressing castings.
5. Plumbers', Coppersmiths', and Sheet Metal Workers' Labourers.—
Solders, braziers.
As coppersmiths' helpers.
As plumbers' labourers.
Operating Presses, Guillotines, Metal Rolls, Edging, Beading, Folding, Seaming, Flanging, Wiring tools and machines.
6. Wood Workers.—
Filling, colouring, varnishing and sandpapering patterns.
7. Galvanising, Sherardising, Tinning, Oxydising, Lacquering, Nickeling, Scratch Brushing and Hand Polishing Small Parts.—
Preparation of boiler tubes.
Cleaning off and trimming soldered or welded joints.

Mines.—

Acetylene welding, drilling, tapping, screwing, fitting, painting.

Motor Cycles.—

Cleaning parts by a sand blasting process and by the use of pumice stone.
Shaft straightening.
Filing by hand and machinery.
Wheel building (fixing spokes).
Scouring for plating.
Scraping for enamelling.
Enamelling, polishing, packing, milling, flatting, drilling, screwing, viewing, inspecting.
Working on accessories (pumps, handles, steering-wheels, mudguards, gear-cases, batteries).

Nuts.—

Making small nuts and washers for war material by small capstan machines.
Operating turret lathes in the manufacture of nuts and bolts for aeroplanes and machines.

Optical Munitions.—

Glass.—

Slitting.

Lenses.—

Roughing, smoothing, polishing, edging, shanking, chamfering, cementing and centring.

Prisms.—

Blocking, testing, silvering mirrors.

Metal Working.—

Gear cutting, milling, engraving, operating small bench lathes, sandblasting, dividing compass dials, dividing large clinometers, stamping.

Finishing and Assembling.—

Lacquering, enamelling, French polishing, spraying, bronzing, assembling parts of instruments.

Pipes.—

Screwing, milling, testing.

Washing (carrying long iron pipes from the racks and submerging them in acid tanks to remove the rust).

Respirators.—

Soldering and making.

Ropes.—

Work on steel wire ropes.
Hemp core making for wire ropes.

Rubber Tyres.—

Tyre studding and casing.
Manufacture of tyre studs.
Rubber moulding and general rubber work.

Rubber Work.—

Buffing, rubbing down, shellacing, polishing sword-handles made of Dermatine (vulcanised rubber).

Scientific Instruments.—

Drilling, polishing, lacquering, assembling, fitting up of clocks and mechanism for scientific instruments.
Coil winding, lacquering, engraving.

Shells.—

Up to and including 4·5.—

Every machine operation on all H.E. shells (including Stokes' shell).
Copper banding, rivetting base plugs, inspecting.

3-in. Shrapnel.—

All operations.

6-in. and 8-in. H.E.—

All machine operations. In some cases with the assistance of special block to lift the billets; in other cases with one labourer to five women to do the lifting.

Shell Cases and Containers.—

Manufacture of.

Shipbuilding.—

Red-leading. Tapping nuts.
Assisting on joggling machine on light plates.
Fitting and machining guard rail stanchions and stays, awning stanchions and stays, hinges for doors and scuttles.
Jointing pipes (rubber joints) on ships and yard plants.
Hinging non-watertight doors.
Fitting rubber on scuttles and W.T. hatches.
Fitting derrick mountings.
Fitting manhole coaming and covers.
Fitting automatic clips and springs.
Tapping and widening tapered holes.
Countersinking holes in marine hull plates.
Sorting, classifying, re-screwing, cleaning bolts.
Sorting and heating rivets.
As platers' helpers.
As angle-iron smiths' helpers.
On thin plate-bending rolls.
Feeding bulkhead lining boards into sand-papering machines.
Sawmill sweeping.
Helping in woodyard.
Assisting at saw, and cleaning up in joiners' shop.
Upholstery work in ships' joiners' shops.
Assisting riggers in rigging house.
Chipping and painting.

Shipbuilding—continued.

Scaling inside holds.
Sweeping up shops.
Unloading light articles from the railway wagons into the stores.
Labouring in the stores.
Handling stores in various storehouses.
Assisting in naphtha store-keeping.
Assisting in iron checking.
Work on plan photography.

Small Tool-making.—

Tool-grinding, grinding saws.
Grinding twist drills to size.
Grinding milling machine cutters.
Milling teeth in a side and face cutter.
Backing off lathes producing form cutters.
Producing double-angled cutters.
Milling, fluting, turning and sharpening taps.
Turning " former " handles for machine tools.
Operating special slot miller on shell-boring lathes.

Tinwork.—

Press work, japanning, cleaning and various processes on hand-made tin ware, for Artillery and Transport requirements.
Pressing of seams on mess tins.
Press stamping oil cans.
Manufacture of tin plates.
Stamping out metal seals for motor spirit cans.
Flanging, spinning, guillotine work.
Making, soldering tin boxes for fuses for hand grenades.

Tubes.—

Press and capstan hands on brass tubes, soldering, lacquering on draw benches for radiator tubes.
Acetylene welding tubes of 18 gauge without added metal.

Vices (Saddle Tree).—

Work on the manufacture, except assembling the parts.

Water Carts (for Army).—

Turning up spindles and small parts of brass pumps.
Painting water carts.

Wire Work.—

Braiding and stranding.
Twisting for electrical fuses and detonators.
Wire cutting for carts.
Wire tempering.
Wire drawing in the wire department.
Weaving of wire netting for submarine work.
Packing.

*Wireless Telegraphy.—**Parts.—*

Lacquering, French polishing, and staining.
Wire winding.
Plating and dipping.
Instrument assembling.
Engraving by machine.

Woodwork.—

Forms (Soldiers', collapsible).—

Training and screwing up collapsible legs.

Assembling, finishing.

Hand Grenade Boxes.—

Painting boxes to hold grenades.

Making hand grenade boxes from sawing out from the plank to the final packing and nailing up (using circular saw).

18-pr. Ammunition boxes, Mark IIIB, '303, 1,000 rounds, A.S.A. boxes.—

Operating, dovetailing machines and power presses, glueing, boring and countersinking the bottom and lid, cutting and securing shell rests, boring boxes to receive screws, papering and chamfering on disc papering machines, roping and filling ready for dispatching.

Spare part and Tool Boxes for Vickers Guns.—

Making small internal fittings.

Boring and recessing rests for tool boxes.

Fracture Boards.—

Boring.

Dynamometer Bars.—

Papering and smoothing.

Work on Explosives.—

Abolite.—

Women can perform every process in connection with this manufacture.

The processes consist of :—Drying T.N.T. and nitrate of ammonia.

Grinding, mixing, cartridging and packing of same.

Ballistite.—

Women are now being employed on all operations in connection with the manufacture of Ballistite.

These consist of :—Mixing, pressing and sifting of paste (Nitro-glycerine and cordite).

Drying on rolls, drying stoves, incorporating, rolling into sheets, cutting sheets into cubes, sifting, drying, blending and packing of same.

Collodion Cotton.—

Women can do all operations except the dipping. The processes are :—

Picking, teasing, drying raw cotton, boiling, pulping, centrifugalling, pressing and drying the nitrated cotton.

Cordite.—

Mixing and sifting guncotton and nitro-glycerine, which forms paste.

Pressing cordite dough into cords and strands, blending, reeling, drying and packing.

Gun Cotton.—

The same operations can be performed by women here as with Collodion

Cotton, except that in this case the women can also perform the nitration.

Nitric Acid.—

Charging nitric acid retorts with nitrate of soda and firing the same.

Phenol.—

Women will shortly be employed on the synthetic production of phenol from benzol.

Picric Acid.—

Women will shortly be employed on sulphonation and nitration of phenol.

They are already being employed on washing, whizzing, working up of crust, drying, sifting and packing of picric acid.

Work on Explosives—continued.

T.N.T.—

Women are being employed on every process in the manufacture of T.N.T., which includes the following:—Nitrating, washing, pelleting, drying, flaking and packing.

In addition to the above, women are being employed in the manufacture of all commercial explosives which are used for blasting operations. Also on a variety of minor operations, such as:—

Making explosives cases.

Filling and sealing powder tins.

Filling, nailing or screwing-up wooden cases.

Stencilling.

Routine tests in laboratories.

Micrometer work.

Heat Tests.

Unloading coke or coal from train or barge.

Unloading nitre in sacks. These weigh about 1·8 cwt.

Unloading pyrites.

Washing carboys and filling and sealing same.

Weighing and loading up carboys on carts.

General transport work, including "teaming" horses.

Note.—The above gives only a general idea of what explosive work women are doing. In every case, however, the locality, type of female labour available and length of shifts must greatly influence all decisions.

General Labouring.—

Wheeling heavy barrow loads of castings.

Carrying and shovelling loam.

Breaking pitch and loading it into trucks.

Digging out naphthaline, bagging and loading into trucks.

Galletting—putting up of ore into hand briquettes ready for placing in the furnaces.

Bagging and wheeling in slag manure Department.

Washing and daubing oven doors.

Loading at screens.

Stoking stationary boilers.

Loading soap into wagons.

Cutting and piling slabs of soap.

Dry-soap making.

Carrying and shifting timber.

Loading and unloading ships with timber.

Sorting scrap iron and loading it into carts.

Clearing up, and work in, shipyards.

Cleaning up and scraping decks after caulking.

Cleaning deck bottom, trimming coals.

Unloading coke or coal from train or barge.

Unloading nitre in sacks (weighing 1·8 cwt. each).

Washing, filling and sealing carboys.

Weighing and loading up carboys on carts.

Cleaning machinery and trucking.

Carrying off—taking bricks from moulding benches to the drying bed.

Filling charging barrow with ore and weighing limestone.

APPENDIX XVI.

(CHAPTER V., p. 96.)

Memorandum of Agreement between Admiralty and Ministry of Munitions of War in regard to the Delegation to the Admiralty of Certain Powers of the Minister of Munitions.

A Conference was held at the Admiralty on 28 December to consider the question of the delegation by the Minister of Munitions to the Admiralty of certain powers of the Minister under the Munitions of War Acts so far as regards shipbuilding and ship repairing yards and marine engineering establishments.

There were present—

Mr. Pretzman	} representing the Admiralty.
Rear-Admiral Tudor	
Vice-Admiral Moggridge	

Mr. Kellaway	} representing the Ministry of Munitions.
Mr. Kent	
Mr. Wolff	

Mr. Macassey.

The powers of the Minister of Munitions which were discussed were the following :—

1. The power to sanction rates of wages, salaries, etc., of classes of persons employed in shipbuilding and ship-repairing yards and marine engineering establishments (M.W. Act, 1915, Section 4 (2)).

With regard to this it was agreed that the Minister's power of sanction should not be transferred, but that the Ministry in sanctioning time-rates, piece prices, premium bonus time allowances or other wage payments in shipbuilding and ship-repairing yards and marine engineering establishments, should act only after previous consultation with the Admiralty.

2. The power to make regulations with regard to the General Ordering of Work in shipbuilding and ship-repairing yards and marine engineering establishments (M.W. Act, Section 4 (5)).

It was agreed that this power should be delegated to the Admiralty and that in the initial period immediately following the transference the officers of the Ministry should afford to the Admiralty such assistance in administration as they were able, but that the Admiralty should ultimately make their own arrangements for the whole of the administration. The Admiralty, however, should always consult the Ministry as to new rules or regulations which they propose to make, and that they should in general try to establish a close local co-operation between their own officials and those of the Ministry.

3. The power to enrol and transfer workmen (M.W. Act, 1915, Section 6).

The question was discussed under the two following heads :—

- (a) Transfer from one district to another district.
- (b) Transfer within the same district of workers in ship-building and ship-repairing yards and marine engineering establishments.

In regard to (a) it was agreed that the enrolment for, and prescribing of the conditions of, and right of effecting transfer should remain in the hands and at the discretion of the Ministry of Munitions, but that the Ministry would, at the request of the Admiralty, from time to time enrol for transfer and effect the transfer of such workers as the Admiralty required to be transferred from one district to another.

In regard to (b) it was agreed that the enrolment for, and prescribing of the conditions of, and right of effecting transfer should be delegated to the Admiralty.

4. The power to make rules as to the wearing of badges (M.W. Act, 1915, Section 8).

It was agreed that this power should not be transferred.

5. (i.) The power to require from employers information with regard to—

(a) The numbers and classes of persons employed or likely to be employed in the establishment from time to time.

(b) The numbers and classes of machines at any such establishment.

(c) The nature of the work on which any such persons are employed, or any such machines are engaged, from time to time.

(d) The cost of production of the articles produced or dealt with in the establishment, and the cost of the materials used for such production, and the names and addresses of the persons by whom such materials were supplied or who are under contract to supply them.

(e) Any other matters with respect to which the Minister may desire information for the purpose of his powers and duties.

(ii.) The power to appoint inspectors with right to enter shipyards for the purpose of obtaining the information and making examinations and inquiries (M.W. Amendment Act, 1916, Section 17 (1)).

It was agreed that these powers (*i.e.*, (i.) and (ii.) above) should be delegated to the Admiralty, and that the Admiralty should undertake to supply the Minister of Munitions with any information thus obtained which the Minister may require, and that before requesting information from employers the Admiralty should endeavour to ascertain whether information wanted by them is not already in possession of the Ministry or the Board of Trade, and should endeavour to avoid any overlapping of functions.

APPENDIX XVII.

(CHAPTER VI., p. 116.)

Memorandum on the Procedure for Giving Effect to the Policy of Dilution.SUMMARY OF DILUTION PROGRAMME AS BASED (WITH MODIFICATIONS)
ON MR. WEIR'S MEMORANDUM.¹

(1) An announcement to be made by the Prime Minister (either in reply to a Parliamentary question or, if preferred, by a more formal statement at the end of questions), that the Government propose now to take steps to bring about the dilution of labour wherever possible, in accordance with the necessities of the situation and on the conditions laid down in the Munitions of War Act and Amending Bill, without permitting further delay on any ground whatever; that they are issuing a general instruction to employers accordingly; and that they are sending a special Commissioner or Commissioners to the most important districts to give effect to this policy. A copy of the announcement actually made is attached.²

(2) Commissioners to be sent to the Clyde (and perhaps to the Tyne) to act as follows:—

(a) They will require selected establishments forthwith to submit their definite dilution proposals. They will satisfy themselves that these proposals are in accordance with the Act and Amending Bill, and with any other pledges given by the Government on the matter, and appear to them generally suitable for its purpose.

(b) Having done this, they will arrange for a meeting representative of the men at the works (the shop-stewards) to be called, with the employer present. The local trade union officials concerned will also be invited to attend. The Commissioners will then state that a scheme of dilution has been prepared under the instructions of the Minister, to be put into force on a named date (not more than three days hence). Formal notice of this scheme will then be given to the men by the employer, and it will be notified that if the men desire consultation, as provided by the Second Schedule to the Munitions of War Act, an opportunity will be given within the next two days, but that in any case the scheme in its final form will be carried into force as from the date named. The workmen will, of course, be entitled to bring their trade union representatives to any consultation. It would be important to get the scheme into operation before the week-end.

¹ A report made early in January, 1916, to the Minister of Munitions by Mr. W. Weir, Director of Munitions for Scotland.

² See p 116.

(3) In the event of a strike taking place or being imminent, the policy will be—

(a) To guarantee adequate police and military protection to all who are willing to work ;

(b) To secure (by an injunction if necessary) that trade union funds are not used to support the strikers ;

(c) To take measures under the Defence of the Realm Act against those who incite to the strike.

The Commissioners would, if they thought fit, make an announcement on any or all of these three points.

(4) Prosecutions of the strikers themselves under the Munitions of War Act would not be undertaken as a matter of course, but with regard to the circumstances of the case, and in particular to the size of the strike. If the strike is a general one, it may have to be left to take its own course. Without recourse to the Union funds it can hardly continue for any length of time, and if, as may be hoped, the strike weakens, the weakening process can then be hastened by prosecuting those who hold out.

(5) The foregoing policy of not necessarily using the Munitions of War Act to prosecute strikers is conditional upon one point, namely, that there should be no bargaining, either directly or indirectly, with the men while on strike, and no acceptance from them of anything but an unconditional return to work and the reference of any outstanding differences in accordance with the Munitions of War Act.

(6) As regards the country generally, a circular will be sent to such controlled establishments as appears desirable. This will contain the Prime Minister's announcement, together with definite instructions to prepare and put into force, in accordance with the Act, a dilution scheme wherever skilled men are doing work which could be done by less skilled labour, coupled with an assurance that the Minister will support the carrying out of such a scheme.

(7) This circular might go to the firms on the Clyde and any other selected districts as well as elsewhere, but would have added to it a note stating that the firms in such districts, before taking action, should communicate with the Commissioners. This will enable us in effect to pick and choose our firms for the first experiment. Apart from the sending of the circular, however, the main point is that whenever at any particular firm the dilution policy is challenged by a definite refusal on the part of the men to agree to it, the challenge should at once be taken up by an instruction to the employers to proceed, and by prosecutions of the men if they carry out their threat of striking.

(8) The foregoing programme having been approved, the Prime Minister's announcement was made on Friday, 21 January. The first meetings on the Clyde will take place on Monday afternoon, 24 January, and the first changes of working conditions will be made during the same week.

Ministry of Munitions,
6, Whitehall Gardens,
22 January, 1916.

APPENDIX XVIII.

(CHAPTER VI., p. 119.)

Form of Schemes Approved by the Clyde Dilution Commission.

H.M. GOVERNMENT COMMISSION TO EFFECT DILUTION OF LABOUR
(CLYDE DISTRICT).

Details of Dilution Scheme put into operation by the Commission
in the Department of.....

Operation
Number of operatives affected
Present class of operative
Class of new operative.....
Treatment of released operative.....
Wages of present operative.....
Wages of present operative in new position.....
Remuneration of new operative.....

Provisions applying to dilution scheme in all departments.

1. The Scheme shall come into operation.....
2. The Scheme is subject to the safeguards provided by
Schedule II. of the Munitions of War Act, 1915.

3. A Shop Committee of the Workers is to be formed to confer with the Management on any point resulting from the practical operation of this Dilution Scheme which it has not been possible to settle between the individual worker concerned and his foreman. If, after the matter has been brought before the Management by the Shop Committee and discussed, a mutual understanding is not arrived at, the matter in dispute shall, without stoppage of work, be referred to arbitration, in accordance with the provisions of the Munitions of War Acts, 1915 and 1916.

4. A record of all past and present changes in practice in the departments affected by the scheme will be deposited at the Labour Exchange..... to be retained for future reference by all concerned.

5. All skilled and semi-skilled men who were engaged at the engineering trade in the service of the employers immediately prior to the War shall, if affected by the scheme, be granted a certificate to that effect should they desire it.

6. No alteration shall take place in this scheme unless and until due notice is given to the workmen concerned, and the procedure followed as prescribed by Clause 7 of Schedule II. of the Munitions of War Act, 1915.

(Signed)

Chairman of Commission.

APPENDIX XIX.

(CHAPTER VI., p. 105.)

Mr. Lloyd George's Meeting with the Shop-Stewards at Glasgow on Christmas Day, 1915.ACCOUNT OF THE MEETING AS REPORTED IN THE GLASGOW
"FORWARD," 1 JANUARY, 1916.

On Saturday morning the St. Andrew's Hall was fairly well filled. An official account of the meeting has been issued by the Censor and published in the Press. The account of Mr. Lloyd George's speech summarised very fairly the points he made, though the language has been "touched up"—at any rate, some of his graceful periods (in the Press reports) did not reach the reporters in the audience.

The comments which preface the official Press report are misleading, inasmuch as they give the impression that only a small minority of the audience was hostile to the Munitions Act. The report also is unfair, in so far as it cuts out Mr. Lloyd George's loudly cheered expression of his friendship for Ramsay Macdonald, and his thanks to the Convener of the Parkhead Shop-Stewards (Mr. Kirkwood) for rising and appealing for a hearing to him when the interruptions threatened to overwhelm him altogether.

The Censor has passed an official report of the meeting issued by the Press Association—probably with the idea of preventing the publication of news about munitions, guns, etc., going to the enemy, as might have been the case if the ordinary newspaper reports had been permitted. We have no desire to touch the military or "preparedness" side of the speech, but the purely political side must not go misrepresented. It is simply stupid to go about deluding people that only an insignificant minority, and not the vast overwhelming majority of the meeting was angry, and the journalist, whoever he was, who drew up the report and omitted the political references to Ramsay Macdonald and the efforts of the Socialists to secure a hearing for Mr. Lloyd George is really *not* playing a patriotic part.

We are all for free speech, and free speech not only for ourselves, but for our opponents. We therefore associate ourselves wholeheartedly with the Socialist effort to secure Mr. Lloyd George a hearing, and regret that a mean spirited Press Report should seek to convey the impression that it was the Socialists (called "Syndicalists") who sought to break up the meeting.

The meeting began with a storm of hissing and booing, and the Chairman (Mr. Henderson) suffered a running fire of interruption. In our opinion he would have done better to have explained the admirable part he played in getting Jas. Marshall, of Parkhead, released from jail rather than to attempt as he did a rather general patriotic appeal. Here is the sort of thing he suffered :—

"I am delighted to have the opportunity of appearing in this hall with the Minister of Munitions—("What about the hall

for the workers?"¹—to lay before you the great issue of the present moment so far as the war is concerned. ("Ay! and profits.") You are all aware of the fact that we are engaged in probably the greatest war—"At home"—that ever the old country has been concerned with.

"The issue that was raised in August, 1914, when the neutrality—"Oh! heavens, how long have we to suffer this?"—of a brave and independent people was trodden upon in the most shameful way. ("That's enough.")

"When we began the war—"We don't want to hear that. Get to the Munitions Act."—I am endeavouring to show you the country was not prepared, and the fact that we were not prepared—(loud interruption: "Cut it short!" "Come away wi' Davy!") . . . Mr. Lloyd George—(loud hissing and booing)—will presently address you—(more booing and hissing and some cheering)—on the importance of the dilution of labour.

"The scheme of dilution that Mr. Lloyd George will recommend to you did not come from any employer. It came from a Committee—(interruption)—upon which there were seven Trade Unionists. ("Traitors. Give their names. Was John Hodge one o' them?")

"I am quite prepared to give you their names. I do not want to hold anything back. The first name I will give you is the Chairman of the A.S.E. (Booing and hissing.) My friends may jeer at his name, but he has been elected Chairman since this scheme of dilution came up. ("Dirty.") Another member of the Committee was Mr. Kaylor—re-elected to the Executive. ("Away with him!") Also Mr. Duncan, who, I believe, is still connected with the A.S.E. Another member was the Secretary of the Steam Engine Makers, and another one was Miss Macarthur. ("Miss Macarthur's the best man o' the lot.") I am quite disposed to agree with my friend. She certainly knows how to deal with women workers. ("Soft soap.")

"What is it they ask you to do? I will be done directly. (Hear, hear!) They only ask you to enable the skill of the workers to be utilised during this crisis in the best interests of the State. ("Yes, in the interests of the Capitalists.")

"We must have the workers necessary to equip the vast army. ("What about the unemployed army after the war?") The whole position will be restored to you after the war. ("Question. Don't think!") It appears to me if the position is so safeguarded that you have everything restored to you after the war—"Why don't you put it in the Bill?" It is already in the Bill. I am afraid some people do not read Acts of Parliament. They only read the criticisms, the false criticisms people make for their own advantage.

¹ The members of the various Socialist Parties were much annoyed at the refusal of Public Halls for their meetings and the cancellation of their licences to hold meetings on Sunday nights in the Lyric Theatre and the Panopticon.

"I want to say here in the most emphatic terms that the safeguarding of the Trade Union position is already in an Act of Parliament. And I want to tell you it was put there by Mr. Ramsay Macdonald. (Great cheering.)

"I hope you all believe in freedom of speech. ("What about the action of the Glasgow Magistrates? You've made a bloomer that time, Arthur!") (Great commotion.) Now I am going to call upon Mr. Lloyd George, and I am quite sure, however much you may differ with him, you are prepared to give him that hearing to which his responsible position entitles him. ("He has got to apologise first.")

"Mr. Lloyd George was sent to organise munitions, and no man has had a harder task. ("Tripe. Nonsense.") If we win this war, as I believe we shall, much of the credit will be due to him. (Commotion.) After he has stated his case I am going to ask for questions, and if you do not waste too much time I think we will have sufficient time to answer all the questions that are sent up. I must ask that the questions be sent up in writing. ("No, no. We're had again.") Surely in a crisis like this Mr. Lloyd George is entitled to see the questions he is going to answer. I hope you will take note, and get your questions ready, and Mr. Lloyd George will do his best to give satisfaction."

On rising to speak Mr. Lloyd George was received with loud and continued booing and hissing. There was some cheering, certainly, and about a score of hats were waved in the area, but the meeting was violently hostile. Two verses of "The Red Flag" were sung before the Minister could utter a word. Owing to the incessant interruption, and the numerous altercations going on throughout the hall, it was quite impossible to catch every word of Mr. Lloyd George's speech.

"My first duty," he said, "is to express regret to you because I could not address the meeting on Thursday." ("Leave that alone.") At this stage a delegate in the area stood upon a seat and endeavoured to speak. He only got the length of saying "Mr. Lloyd George," when apparently he was pulled down. There were loud cries of "Free Speech," and someone shouted: "This is a meeting of Trade Union officials, not police officials," evidently hinting at the surprisingly large force of police in the hall. "This is the only opportunity we have," shouted another; "they on the platform will never give us the opportunity." The Chairman appealed for quietness, and again gave the order of procedure. "It was only proper," he said "that they should accept the ruling."

Mr. Lloyd George tried to resume. "I have to express my regret at the alteration of the arrangement. ("What about the Conference at Bristol?" and loud cries of "Apologise.") I have addressed many meetings in Scotland, and have never seen Scotsmen deny the right of free speech. The vast majority

are in favour of it." Amidst the general commotion Mr. Lloyd George was understood to say that he stood with the Socialists against the South African War. He continued: "I thought a small nationality was being oppressed, and I did not care whether it was being oppressed by our own people or by a foreign land. . . . Let me put this to you, friends: Whilst we are comfortable at home on a Christmas day—(interruption—"No sentiment; we're here for business")—there are hundreds of thousands of our fellow-countrymen, some of them our sons, some of them our brothers, in the trenches facing death. ("You're here to talk about the dilution of labour.") It's on their behalf, and at their written request, that I come here to put before the workmen of Glasgow their appeal for help.

"We need a very large number of heavy guns and projectiles, and I am going to put to you a business proposition. ("For the exploiters.") Do you think these men in the trenches are exploiters? ("Don't hedge.") ("The shipowners are doing their bit.") Do let me state the facts. ("We know them.") . . . What steps have we taken? We have started great National Factories, State-owned and State-controlled; every timber and nail in them belonging to the State. My friends, these are great Socialist factories. (Violent interruption.) Believe me, the whole of them owned by the State, erected by the State; no profit made by any Capitalist, because they don't belong to the Capitalist.

"What is the issue? Does anyone deny that these factories we are building are State factories? (A voice: "Yes.") If you deny that you would deny anything.

"I will ask any man representing you in the House of Commons—and surely there is someone you trust. ("No!" and laughter.) Not even Mr. Ramsay Macdonald? ("Yes, yes!" Loud cheers given for Ramsay Macdonald.) Mr. Macdonald is one of my greatest personal friends, and whether he is for the War or against the War, not one single word will fall from my lips against Mr. Macdonald. You get Mr. Ramsay Macdonald—"What about the hall for him?"—he will tell you they are National Factories.

" . . . Mr. Thomas, one of the most distinguished members of the Socialist Party, and as good a Socialist to-day as he ever was—"What about Jaures?"—took the matter of shells in hand. He called to his assistance the French women, and brought them into the factories. With what result? The German invasion was rolled back, and the Germans had no more chance of conquering any more French territory than they have of conquering the Kingdom of Heaven.

"Is it too much to ask the British workmen to help his comrades in the field? ("No; what about the Munitions Act?") France will never forget it. Whatever scheme the

French workman puts forward in the future for better treatment he will have the ear, the willing ear of millions of French men and women, who will remember the gallant and devoted service he rendered to his country." (Cries of "Hurry up," and commotion.)

(Mr. Kirkwood apparently had been appealed to for help, and he made an appeal to the meeting to hear the speaker. This was duly acknowledged by Mr. Lloyd George.)

"Mr. Kirkwood," he said, "did not restrain himself from telling me what he thought about the Munitions Act and about me; but, at any rate, he knows the value of free speech, and I am very thankful to him for his assistance in obtaining order. . . . I have but one word more to say. I want to talk to you in all sincerity as a man brought up in a worker's home. I know as much about the life of the worker as any man here. The responsibility of a Minister of the Crown in a great war is not an enviable one. ("The money's good," and laughter.) I can assure you it is no laughing matter.

". . . There will be unheard of changes in every country in Europe; changes that go to the root of our social system. You Socialists watch them. It is a convulsion of nature; not merely a cyclone that sweeps away the ornamental plants of modern society and wrecks the flimsy trestle-bridges of modern civilisation—it is more. It is an earthquake that upheaves the very rocks of European life.

"And to go on chaffering about a regulation here, and the suspension of a custom there, under these conditions, why, it is just haggling with an earthquake. Workmen, may I make one appeal to you? (Interruption.) Lift up your eyes above the mist of suspicion and distrust. Rise to the heights of the great opportunity now before you. If you do you will emerge after this War is over into a future which has been the dream of many a great leader." (Cheers; loud hissing and booing.)

At the close of his address, Mr. Lloyd George proceeded to answer the written questions which had been handed up from the body of the hall. He promised to reply to them all if he possibly could, but he had an engagement at 12 o'clock, and if he failed to get through them the remaining answers would be published. At 11.45, however, Mr. John Muir, of the Clyde Workers' Committee, got up on the seat and demanded an opportunity of stating the case for the workers. This, he said, had been promised, and he was not going to wait any longer. Both Mr. Lloyd George and Mr. Henderson appealed to him to resume his seat, but Mr. Muir was determined not to be put off till Mr. George had to leave. As it was impossible to hear either the Minister or Mr. Muir, the Chairman closed the proceedings, and the meeting broke up in disorder.

INDEX

- ADAMS, Mr. J. B. 3, 5, 9, 10
 ADDISON, Dr. C., 36, 55, 59, 111, 122, 133.
 ADJUDICATION, 10, 12, 23, 24, 25, 26, 27, 35.
 ADMIRALTY 6ff
 Letter to M.M. (30/11/15) 7
 Conference with M.M. (7/12/15) 8
 Priority Section 8, 10
 Dilution 8, 10, 93ff, 127, 135
 Agreement with M.M. (28/12/16), 96, 171.
 ALBION MOTOR CAR CO. 130, 134
 AMALGAMATED SOCIETY OF ENGINEERS, 62, 68, 86n, 98, 99, 100, 110, 114, 117, 122, 123, 126, 129, 130, 131, 132, 133.
 AREA OFFICE 4, 5
 ARMSTRONG, Sir W. G. Whitworth & Co., Ltd., Elswick, 33, 36n, 90, 113
 ASQUITH, Mr. H. H. 40, 41, 116
- BALFOUR, Mr. A. 96
 BARNES, Mr. G. N. 42
 BARR, Mr. Mark 68
 BEARDMORE, Sir W. 129
 BEARDMORE, W., & Co. 33, 117
 Mr. Lloyd George's meeting at Parkhead Forge (23/12/15), 102.
 Strike at Dalmuir (29/12/15) 110
 Strike at Dalmuir (21/3/16) 130, 134
 Strike at Parkhead Forge (March, 1916), 129ff.
 BEVERIDGE, Mr. W. H. 23, 111
 BLACK, Sir F. W. 9
 BLAIR, Sir R. 59
 BOARD OF EDUCATION, 59, 60, 61, 63, 64, 65, 67.
 BOARD OF TRADE—
 Reports on Employment, 17, 81n, 139n.
 BRADY, Sir R. 9, 38, 52
 BRODIE, Mr. 100, 115, 126
 BROWNLIE, Mr. J. T. 99, 100, 102, 131
 BUNTON, Mr. S. 115, 126, 131
- CENTRAL MUNITIONS LABOUR SUPPLY COMMITTEE, 23, 24, 45, 99, 101, 123
 CIRCULARS—
 L.2 87, 88, 99, 100, 118, 119ff
 L.3 87, 88, 99, 118, 130
 L.6 87, 89
- Circulars—*contd.*
 L.25 3, 5, 18
 L.33 14
 C.E.1 3, 100
 C.E. 2 89
 Training 3 63ff
 Training 8 68
 CLYDE DILUTION COMMISSION, 90, 125, 129, 134, 135.
 Policy and Procedure, 117ff, 120, 125ff.
 Proclamation to Strikers at Lang's, 121.
 Report on Parkhead Strike (24/3/16), 131.
 Form of Schemes approved by, 175.
 CLYDE WORKERS' COMMITTEE 103ff, 109, 123, 125, 130, 131, 134.
 COMMITTEE ON PRODUCTION 127, 128
 CONTROLLED ESTABLISHMENTS, 2n, 3, 68, 83, 86, 87, 103, 104, 126.
 COVENTRY ORDNANCE WORKS, SCOTSTOWN, 29, 130.
- DEFENCE OF THE REALM ACT 4
 Reg. 8a 7, 14, 83, 85
 Reg. 14 125, 131, 132n, 134
 Reg. 27 111
 Reg. 42 112, 125, 132
 Reg. 51 111, 125
 DERBY, Lord 16, 47, 80
 DESBOROUGH, Lord 41, 42
 DILUTION 3, 7, 19, 21, 24, 30, 106, 113
 Inspection 3; 4, 94, 95, 96
 Employment of Women, 16, 17, 80
 81ff, 87, 88, 98, 161ff.
 Promoted by W.M.V. Scheme, 33, 90, 92.
 Economic Conditions of 74, 75
 "Skilled Man" and "Skilled Work," 75ff, 80, 82, 113.
 Subdivision of Processes 78
 Factory Equipment 79
 Upgrading 79, 80, 126
 Legal Powers of M.M. 83ff
 Inter-Departmental Difficulties, 86, 93ff.
 Trade Union Difficulties 86ff, 117
 Restoration of Suspended Customs, 89, 103, 118.
 Consultation with Workmen 89, 90, 117ff.
 Opposition of Employers 91, 92

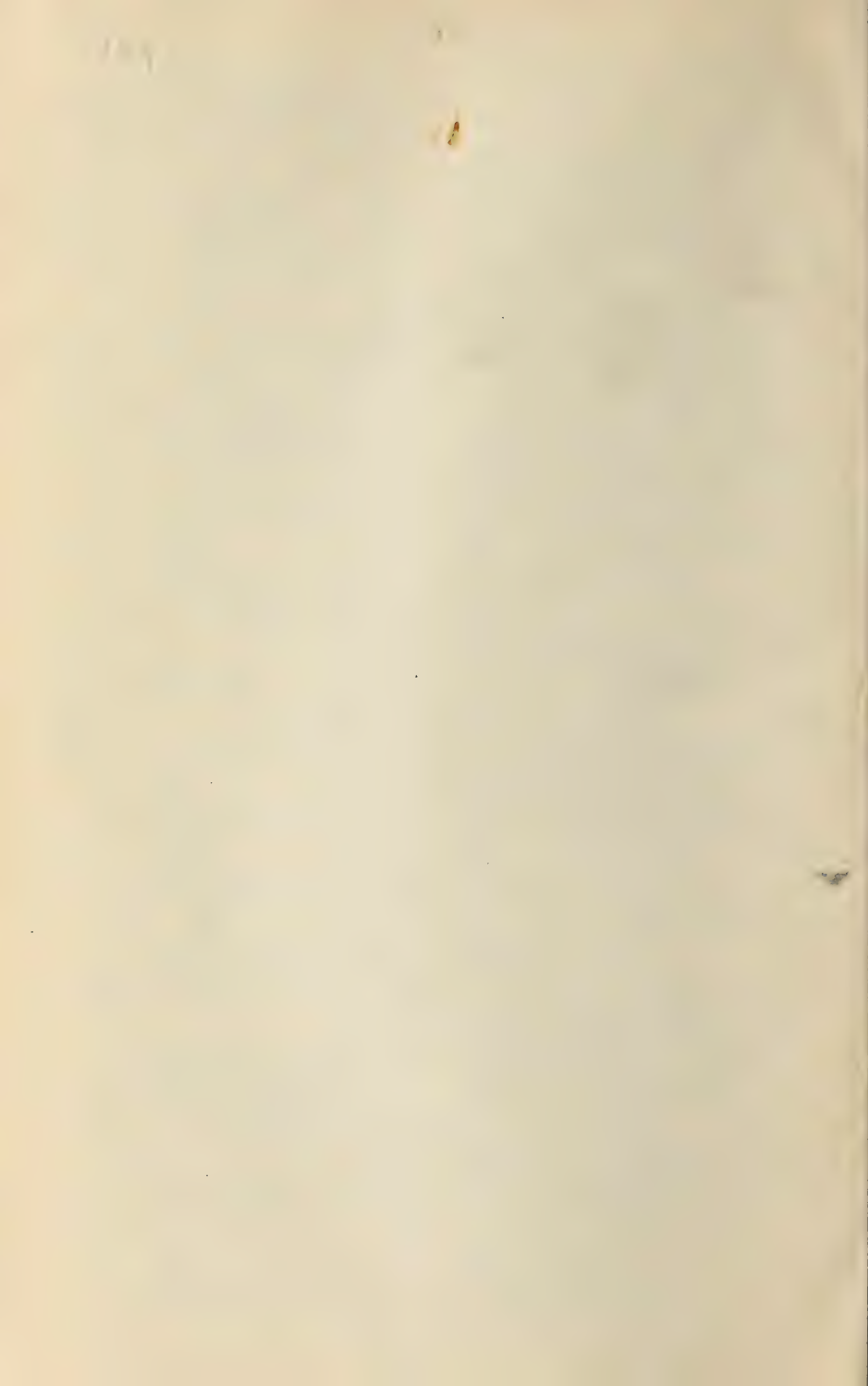
Dilution—*contd.*

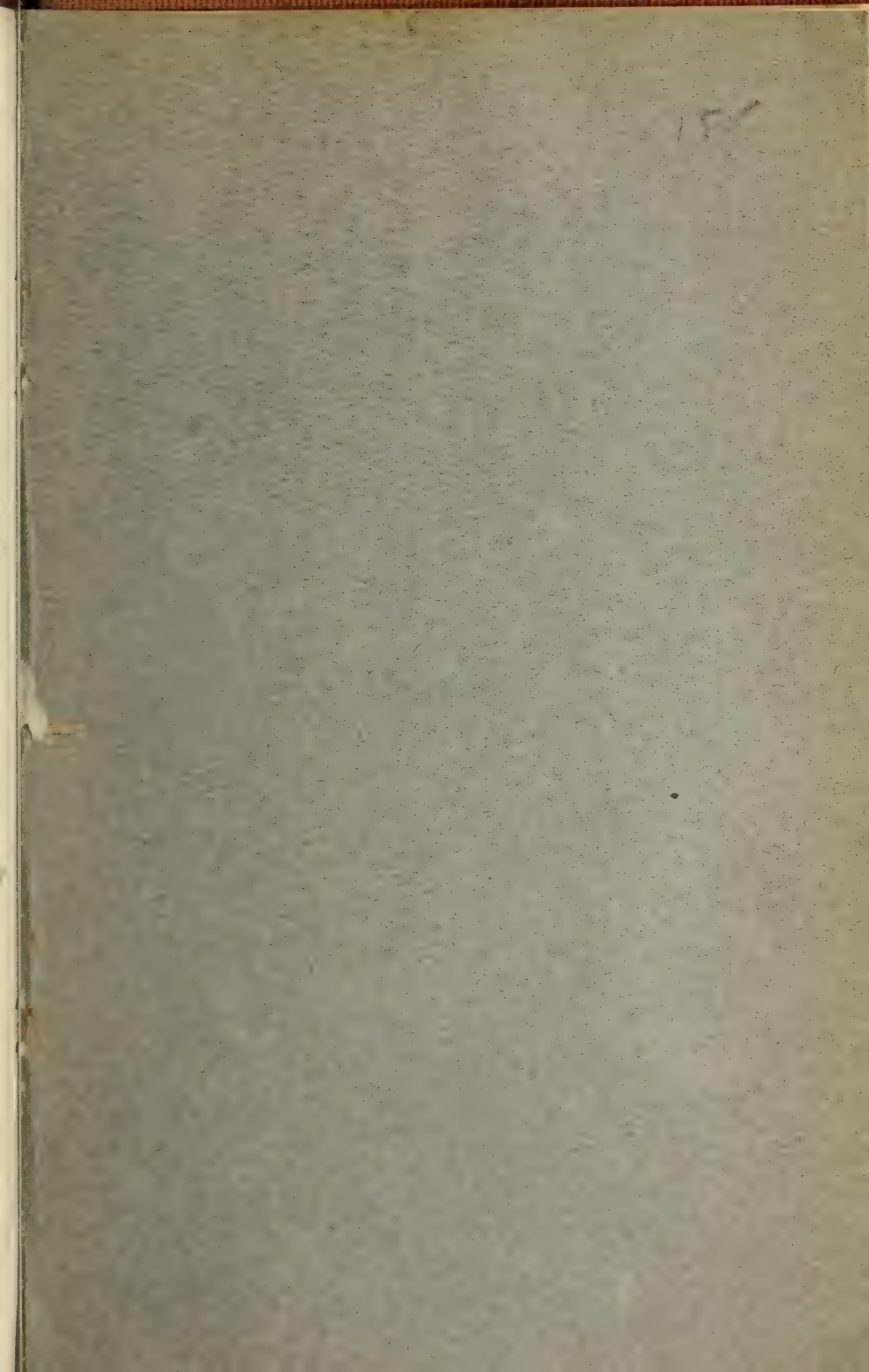
- Statistics, 16, 17, 21, 97n, 146, 148, 149.
 Wages for Split Jobs . . . 119, 120
 Memorandum on Procedure (22/1/16), 173.
 DUCKHAM, Mr. Alexander . . . 12
 DUNCAN, Gen. R. P. . . . 51
 EWART, Sir Spencer . . . 111
 FEDERATED ENG. AND SHIPBUILDING TRADES, 133.
 FORSTER, Mr. H. W. . . . 55
 FORWARD . . . 102n, 105n, 111ff, 176ff
 FRENCH, Sir John . . . 40, 41, 48
 FYFE, Sheriff T. A. . . . 110, 133
 GALLACHER, Mr. W. . . . 125
 GEORGE, Mr. D. Lloyd, 12, 40, 48, 49, 50, 51, 55, 68, 82, 86, 93, 98, 111, 112, 113, 114, 115, 123, 132, 133.
 Visit to Glasgow, Christmas, 1915, 101ff, 176ff.
 GIROUARD, Sir P. . . . 59
 GORMAN, Mr. . . . 99
 GREENE, Sir Graham . . . 8
 HENDERSON, Mr. Arthur, 24, 55, 101, 102, 105, 106, 109.
 HERBERT, Sir A. . . . 76n
 HOGGE, Mr. . . . 112n
 INDUSTRIAL COMPULSION, 23, 52, 53, 55
 INSPECTION . . . 3, 3n, 4, 91, 94, 95, 96
 JENKIN, Commander . . . 127
 JOINT COMMITTEES . . . 90, 113, 115
 KENT, Mr. Stephenson . . . 10, 12, 56
 KIRKWOOD, Mr. D. . . . 102, 129, 132
 KITCHENER, Lord . . . 40, 53, 54
 KYNOCH, Messrs., Ltd. . . . 71
 LABOUR DEMAND, 1ff, 147, 148, 149, 152ff.
 Verification of . . . 2ff
 Classification of, 5ff, 10ff, 19, 20, 21
 Demand for Unskilled Labour, 16, 17
 Demand for Skilled Labour, 17ff, 149
 LABOUR EXCHANGES, 1, 2, 7, 8, 64, 65, 66, 90.
 Verification of Demand by . . . 2ff
 Priority Instructions to . . . 10ff
 Statistics of Vacancies notified to, 17, 18, 147, 148, 149, 152ff.
 Allocation and Transfer of W.M.V.'s devolved on, 24, 25, 34.
 Allocation of Released Soldiers by, 38
 Supply of Labour by . . . 158
 LABOUR OFFICERS. . . . 4, 60
 LABOUR PRIORITY COMMITTEE . . . 5ff
 LABOUR SUPPLY . . . 158
 See Dilution, Release from the Colours, Training, War Munition Volunteers.

- LANG, J., & Sons . . . 98ff, 117, 119ff
 LAW, Mr. Bonar . . . 133
 LAYTON, Mr. W. T. . . . 9
 LEAVING CERTIFICATES . . . 27, 29, 54
 LOCAL EDUCATION AUTHORITIES, 60, 61, 64, 65, 160.
 LOCAL LABOUR ADVISORY BOARDS, 24, 25, 28, 90.
 LONDON COUNTY COUNCIL . . . 59, 69, 71
 LONG, Mr. W. H. . . . 52, 53, 54
 LORD ADVOCATE . . . 111, 125
 MACASSEY, Mr. Lynden . . . 117, 122, 131
 See Clyde Dilution Commission.
 MACREADY, Sir N., 40, 41, 42, 47, 49, 50, 52, 53, 54, 55, 56.
 MATERIALS PRIORITY COMMITTEE, 5, 6, 10, 14.
 MATSON, Mr. . . . 100
 MAVOR & COULSON . . . 130, 134
 MILITARY SERVICE ACTS . . . 47, 52ff
 Effect on Labour Supply, 16, 19, 21, 22, 30.
 MITCHELL, Mr. I. H. . . . 117
 See Clyde Dilution Commission.
 MOGGIDGE, Adm. A. Y. . . . 8
 MONTAGU, Mr. . . . 96
 MUIR, Mr. J. W. . . . 103, 109, 125
 MUNITIONS COMMITTEES . . . 60, 64
 MUNITIONS INDUSTRIES . . . 12ff
 Statistics of Employment in, 16, 17, 139ff.
 Enlistment from . . . 145
 MUNITIONS OF WAR ACT, 1915, 6, 7, 12, 83, 84, 86, 88, 93, 101, 102, 117, 124, 127, 129.
 MUNITIONS OF WAR (AMENDMENT) ACT, 1916, 12, 87, 122, 123.
 MUNITIONS TRIBUNALS. . . . 110, 133, 134
 MUNITIONS WORK . . . 12ff
 MUNRO, Sir Thomas . . . 117
 See Clyde Dilution Commission.
 MURRAY OF ELIBANK, Lord, 4, 8, 9, 40, 42, 101, 111.
 MURRAY, Mr. Lee . . . 9
 NATIONAL ADVISORY COMMITTEE, 45, 62, 133.
 NATIONAL CLEARING HOUSE NEWS-PAPER, 2, 11.
 NATIONAL FACTORIES, 10, 20, 33, 36, 58, 59, 66, 69, 70, 71, 83, 106
 NATIONAL REGISTER . . . 24, 30, 31
 NEEDHAM, Mr. . . . 116
 NORTH BRITISH DIESEL ENGINE WORKS, 130.
 OSBORN, Mr. N. F. B. . . . 9
 PATERSON, Mr. J. . . . 111
 PRIORITY LIST, 5, 7, 8, 10, 11, 19, 20, 25, 28, 32, 34, 38, 50.
 PURDY, Mr. . . . 68

RELEASE FROM THE COLOURS, 21, 32, 130.	
Allocation of Released Soldiers, 2, 5, 35ff, 44.	
U.K. Bulk Scheme, 35ff, 45, 56	
Work on which R.C.'s engaged, 39, 57.	
B.E.F. Bulk Scheme 40ff, 48, 56	
Wages and Allowances, 44ff, 52, 53, 54.	
Apprentices 44, 45, 46, 51	
Discipline 47, 55	
Sir G. Younger's Report on Procedure of R.C. Section 47	
Releases for Shipbuilding, 48, 49, 51, 56, 57.	
Proposal to alter status of Released Soldiers, 52ff.	
Statistics 56, 57, 152ff, 157, 158	
Occupations of Released Soldiers, 57, 156.	
Royal Warrant (11/5/15) 155	
REY, Mr. C. F., 4, 8, 9, 11, 23, 24, 25, 111, 115.	
ROBERTSON, Sir W. 55	
SCOTT, Major F. J., 41, 42, 43, 47, 54, 56.	
SHOP-COMMITTEES 104, 113, 118	
SMITH, Sir H. Llewellyn, 10, 47, 49, 50, 52, 53, 111, 120, 123.	
STEWARTS AND LLOYDS 38	
STRIKES 125	
Thornycroft's, Southampton (September, 1915, 36 (n.).	
Beardmore's, Dalmuir (29/12/15), 110	
Lang's, Johnstone (1/2/16) 119ff	
Beardmore's, Parkhead, etc. (17/3/16), 129ff.	
SYDENHAM, Lord 54	
TAYLOR, Mr. T. M. 60	
TENNANT, Mr. 111	
THOMSON, Mr. Rowan 100	
TIMES 105 (n.)	
TRADE UNIONS, 36 (n.), 75ff, 104, 105, 124.	
TRAINING OF MUNITION WORKERS—	
Preliminary Difficulties 58ff	
Equipment of Technical Schools, 58, 61, 65, 67.	
Financial Arrangements, 60, 61, 69, 71, 72.	
M.M. Scheme (5/11/15) 63ff	
Placing of Trainees 65, 66	
Training of Toolsetters 67ff	
Training of Leadburners 70	
Training of Gaugemakers 71	

Training of Mmunition Workers— <i>contd.</i>	
Training of Women 72, 73	
Instructional Workshops 72	
Statistics 72, 73, 159	
List of Schools under M.M. Scheme, 160.	
TREASURY 3 (n.) 60, 61, 69, 71, 72	
TREASURY CONFERENCE 86, 87, 88	
TYNE DILUTION COMMISSION 90	
VICKERS, Messrs., Ltd. 33, 68, 69	
WAGES—	
Of W.M.V.s 23, 24, 27, 28	
Of Released Soldiers 44ff	
Of Dilutees 32, 87ff, 118, 119ff	
Piece-work Prices 87, 88	
Government's Policy as to Advances (November, 1915), 128.	
WAR MUNITION VOLUNTEERS, 4, 20, 23ff, 90.	
Allocation of 2, 23	
Adjudication on Transfer of, 23, 24, 25, 26, 27.	
Wages of 23, 27, 28, 34, 87	
Allocation and Transfer Decentralised, 24, 25.	
Obstacles to Transfer of, 25ff, 87	
Re-enrolment of. 29, 30	
Discontent of 28, 29	
Cost of W.M.V. Scheme, 30 (n.), 151	
Statistics 31, 149, 150, 158	
Occupations of 32	
Firms assisted by 33	
Value of W.M.V. Scheme, 30ff, 90, 92	
WAR OFFICE—	
Arrangements with M.M. as to Priority and Dilution, 9, 10.	
U.K. Bulk Release Scheme, 35, 37, 39.	
B.E.F. Bulk Release Scheme 40	
Claim to adjudicate on urgency of Munitions Work, 47ff.	
Proposal to alter status of Released Soldiers, 52ff.	
WEIR, G. and J., 117, 125, 130, 132, 133	
WEST, Mr. Glynn 59, 67	
WOLFE, Mr. 84 (n.)	
WOMEN—	
Employment on Munitions, 16, 17, 72, 73, 78 (n.), 80, 81ff, 146.	
Wages of Dilutees 82, 87, 88, 103	
Processes on which Employed, 161ff	
WOOD, Mr. McKinnon 132	
WORKER 104, 123ff	
YOUNGER, Sir G., 5, 6, 7, 35, 37, 38, 43 (n.), 47, 50, 55.	





CONTENTS OF VOLUME IV.

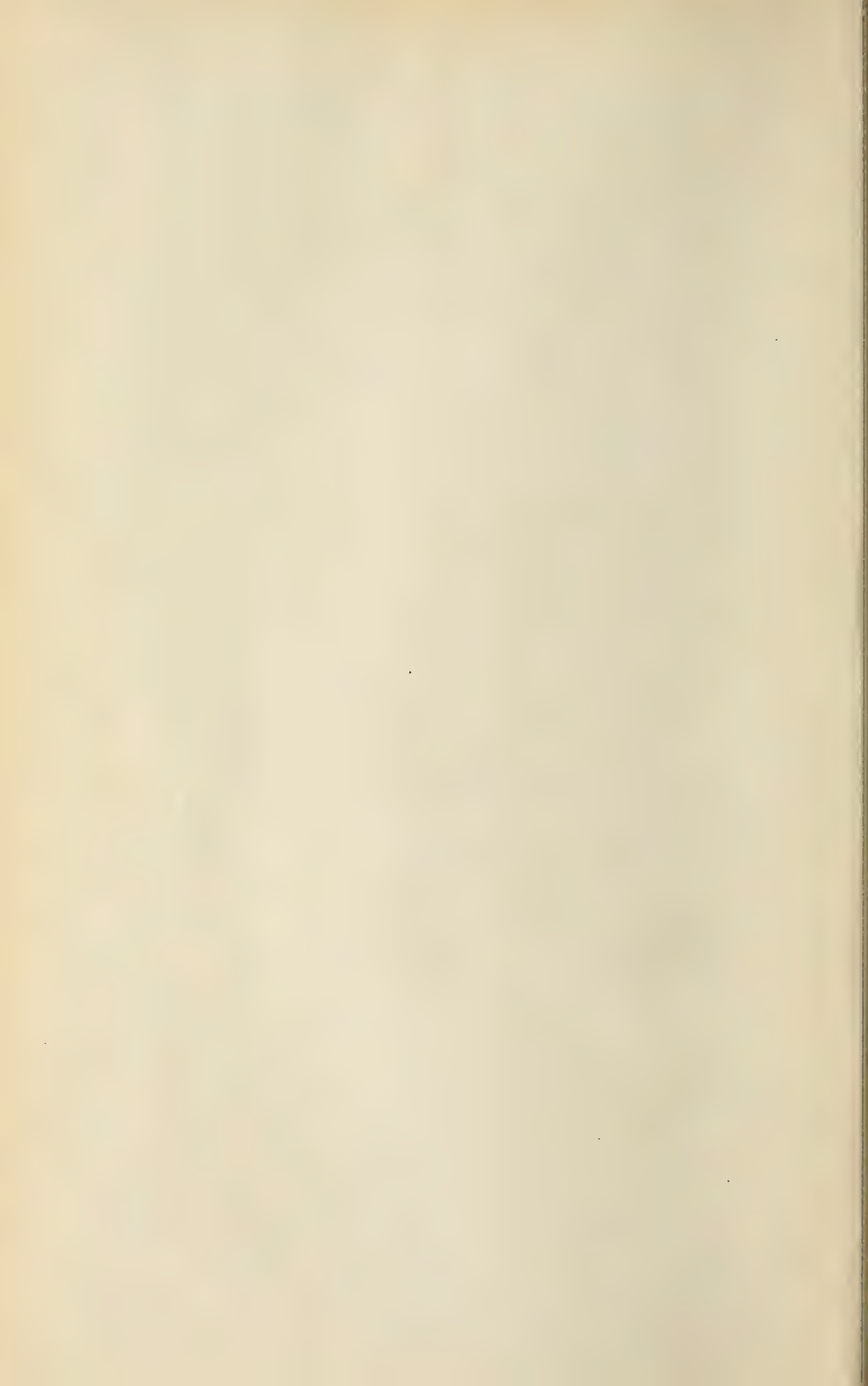
Part I.—Labour Supply, July-December, 1915.

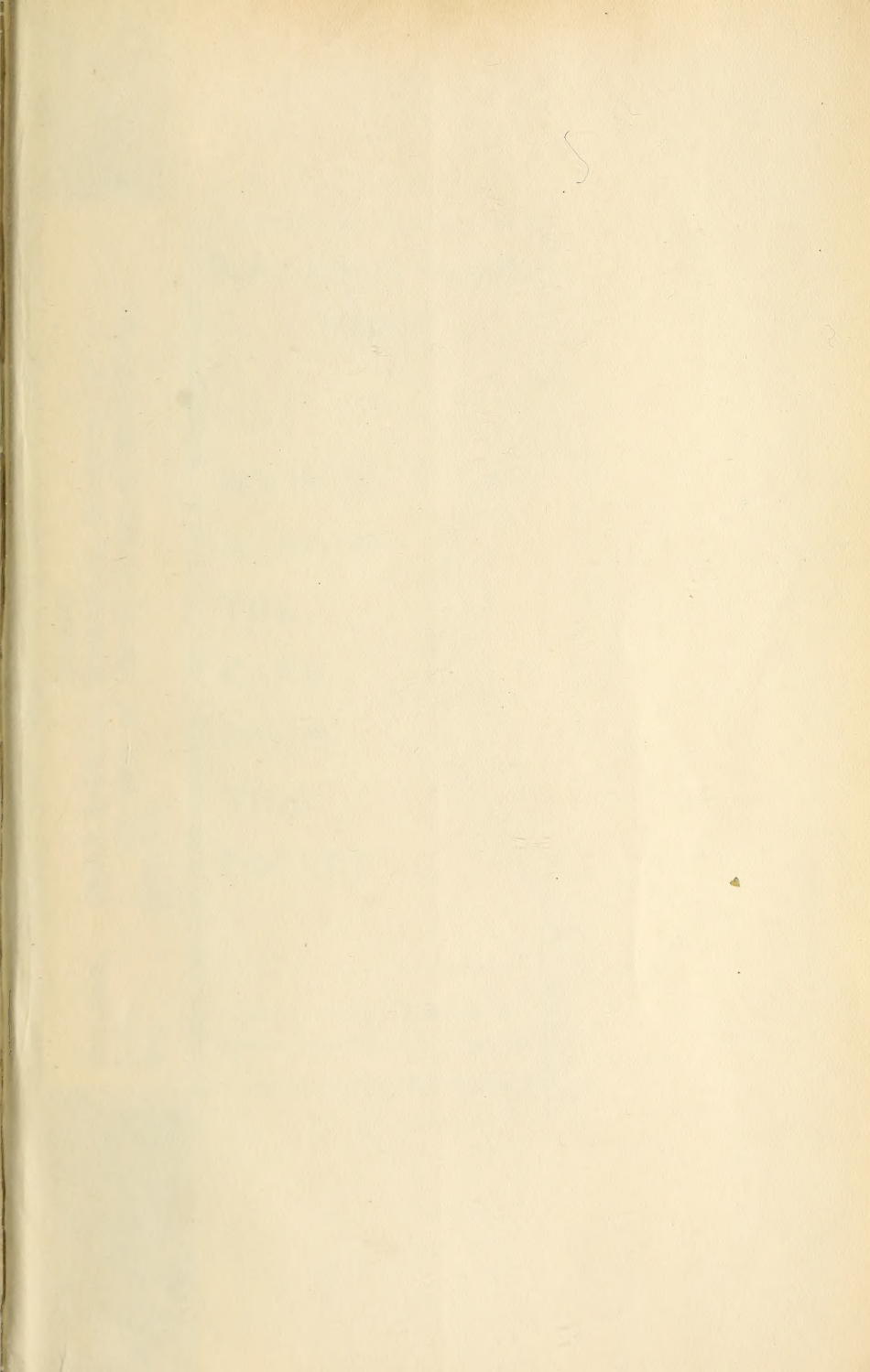
Part II.—Labour Regulation and the Munitions of War (Amendment) Act, 1916.

Part III.—The Limitation of Recruiting.

Part IV.—The Progress of Dilution.

*NOTE.—The present issue is subject to revision,
and must be regarded as provisional.*





**University of Toronto
Library**

**DO NOT
REMOVE
THE
CARD
FROM
THIS
POCKET**

Acme Library Card Pocket
LOWE-MARTIN CO. LIMITED

196690
Great Britain. Munitions, Ministry of
History of the Ministry of Munitions.
Vol. 3-4

Gov. Doc.
G.B.
Mun

